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ABSTRACT

This report provides the step-by-step instructions required for using the Navy's Basic Organizing/Optimizing Training Scheduler (BOOTS) system. BOOTS is a computerized tool designed to aid in the creation of master training schedules for each Navy recruit training command. The system is defined in terms of three major functions: (1) data file editing, in which the user defines the scheduling parameters and constraints, (2) scheduling, in which the user builds the training schedule while using the system to monitor all of the defined constraints, and (3) data output generators for formatting and printing hard copies of the resulting schedule and documenting the supporting data files. Following an introduction (section 1), the guide contains three sections and two appendixes. Section 2 provides a general description of the master training scheduling problem. A brief overview of BOOTS is provided in section 3. This is followed in section 4 by detailed step-by-step instructions on how to use the BOOTS system to prepare new and/or revise old master training schedules. An annotated list of the BOOTS software and detailed specifications of the hardware configuration requirements needed by the BOOTS system are contained in appendixes to the guide. (Author/KC)

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TRAINING ANALYSIS AND EVALUATION GROUP

TECHNICAL REPORT 151

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THE BASIC ORANIZING/ OPTIMIZING TRAINING SCHEDULER (BOOTS): USER'S GUIDE

SEPTEMBER 1983

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Technical Report 151

THE BASIC ORGANIZING/OPTIMIZING TRAINING SCHEDULER (BOOTS): USER'S GUIDE

Richard L. Church
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Training Analysis and Evaluation Group

September 1983

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This report provides the step-by-step instructions required for using the Basic Organizing/Optimizing Training Scheduler (BOOTS) system. The BOOTS is a computerized tool designed to aid in the creation of Master Training Schedules for each Navy Recruit Training Command. The system is defined in terms of three major functions: (1) data file editing, in which the user defines the scheduling parameters and constraints, (2) scheduling,

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in which the user builds the training schedule while using the system to monitor all of the defined constraints, and (3) data output generators for formatting and printing hard copies of the resulting schedule and documenting the supporting data files.

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The following TAEG professionals have contributed substantially to the success of the program. Mr. D. R. Copeland initiated the effort to develop a computerized scheduling system for the RTCs and served as the team leader for the project. Mr. M. G. Middleton provided key professional guidance in the selection of the equipment upon which the system was implemented. Mr. S. O. Solomon (currently a student at the University of Central Florida) made numerous contributions to the development of the computer programs.

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SECTION I

INTRODUCTION

The Navy currently trains 90,000 to 100,000 recruits each year. This training is accomplished at the three Recruit Training Commands (RTCs) located at Great Lakes, Orlando, and San Diego. The large throughput requires that one or more new companies (training units) be formed and commence training almost daily at each RTC. Consequently, a complex set of company training schedules called the Master Training Schedule (MTS) is required for each RTC. Each company schedule must account for the entire training curriculum and, at the same time, avoid conflicts in resource utilization with any other company schedule within the MTS. Because of the complexity introduced by having multiple companies utilizing one set of resources while operating on different schedules, the preparation of the MTS is a highly labor intensive task. In addition, the manual development of the MTS may also result in errors or conflicts in the schedule. Therefore, each RTC spends considerable additional time and effort in checking and rechecking the MTS to minimize such problems and to ensure that adequate resources are available.

In response to a tasking[1] by the Chief of Naval Education and Training (CNET), and task prioritization by the Chief of Naval Technical Training (CNTECHTRA),[2] the Training Analysis and Evaluation Group (TAEG) initiated an effort in April 1981 to develop a computerized system to considerably simplify the scheduling task. This flexible user-oriented system, called the Basic Organizing/Optimizing Training Scheduler (BOOTS), was developed with the support of the three RTCs and is designed for use by scheduling personnel at the RTCs. Two documents have been prepared which describe the system and its employment. The first presents an overview of the BOOTS and chronicles its development.[3] The present report is the BOOTS User's Guide.

PURPOSE

The present report, together with a supplement, is a user's guide giving step-by-step instructions on how to use the BOOTS to prepare Master Training Schedules. With these instructions, RTC scheduling personnel can use the BOOTS system to quickly and easily prepare new, or revise old, Master Training Schedules. The steps outlined in this report are very detailed, so that the first-time user will meet with no surprises. However, because the BOOTS is designed with imbedded instructions for the user, this guide may be quickly dispensed with as experience is gained by the user.

ORGANIZATION OF THIS REPORT

In addition to this introduction, the report contains three sections and two appendices. Section II provides a general description of the MTS

[1]CNET ltr Code N-53 of 6 December 1979.

[2]CNTECHTRA msg 062235Z March 1981, Subj: Recruit Training.

[3]F. Laurence Keeler and Richard L. Church. The Basic Organizing/Optimizing Training Scheduler (BOOTS): System Overview. Technical Report 150. September 1983. Training Analysis and Evaluation Group, Orlando, FL 32813.

scheduling problem. A brief overview of BOOTS is provided in section III. This is followed in section IV with detailed step-by-step instructions on how to use the BOOTS system to prepare new and/or revise old Master Training Schedules. An annotated list of the BOOTS software is contained in appendix A. Appendix B details the hardware configuration requirements of the BOOTS system. A supplement to this report (published under separate cover) provides a hardcopy of a sample set of data files and schedule extracts associated with a schedule produced by the BOOTS system.

SECTION II

THE SCHEDULING PROBLEM

All elements of the recruit training process must be scheduled to avoid conflicts of space and time. The elements to be scheduled include:

- training topics (instructional elements; e.g., Fire Fighting)
- training functions (noninstructional elements; e.g., medical examination)
- meals (breakfast, lunch and dinner for each day).

The training topics and training functions, along with the number of training periods required for each, are specified in the Curriculum Outline for U.S. Navy Recruit Training, X777-7770, published by the Chief of Naval Technical Training (CNTECHTRA). Meal serving times must be set in cooperation with the Galley at each of the RTCs, because the Galleys are operated under the Naval Administrative Command at each Naval Training Center. To avoid conflicts, the schedule is required to specify the exact sequence and times for all activities (including meals) which occur during training.

MASTER TRAINING SCHEDULE

The Master Training Schedule (MTS) is a complex set of individual company training schedules designed to work together using the same limited set of resources. Each RTC must develop an MTS to accommodate its specific resource limitations. Since the base resources vary at each RTC, each RTC must have a unique MTS.

The major problem in setting up a schedule is the assignment of space. While space assignment may not, at first, seem difficult, the complexities of operating a facility where new companies begin training almost every day present many problems. At each RTC there is a possibility for new companies to start training on two different schedules each day. Given the current 38 day (7.7 week) curriculum, and two schedules, there is the potential requirement for the simultaneous operation of 76 different daily schedules.

In addition, every company starting training in the same week must Pass-In-Review on the last Friday of training. Thus, if a company starts on a Monday, it will Pass-In-Review on the 35th day of training (called the 7-5 day because it is the 5th day of the 7th week). A company starting on a Tuesday will have its last Friday of training and Pass-In-Review ceremonies on the 34th day of training (7-4 day). Since all companies starting in the same week (i.e., in the same training group) Pass-In-Review on the same day, there must be 10 (two companies on each of 5 days) variations of the schedule. In scheduling, training area usage must be tallied for each training area for each day of the week and period of the day for up to 76 different daily company schedules, each at a different point in one of 10 variations of the 38 day schedule. Clearly, making up an MTS is a formidable scheduling task.

Current preparation of the MTS is a labor-intensive task with few special aids being employed. The scheduling process requires keeping track of a myriad of details on resource usage as well as on curriculum requirements. Computer technology is ideally suited for increasing the efficiency of such record keeping and assignment tasks.

SCHEDULING PROBLEM CONSTRAINTS

The MTS is composed of a set of individual company schedules. The schedules are based on the day of the week that training begins as well as on special conditions (e.g., the requirements of special companies which participate in several Pass-In-Review ceremonies). At times of peak recruit input, all schedules in the MTS will be used simultaneously. The simultaneous use of all schedules under peak input conditions determines the peak demands on RTC resources and services such as classroom space, instructor pool, galley serving capabilities, and medical evaluation teams. Each schedule needs to be determined with respect to the resources used by the other schedules, in order to prevent the assignment of more companies to a particular resource than that resource can accommodate.

In addition to resource limitations, there are a number of other scheduling constraints involved in assigning the training topics and functions to a schedule. The particular constraints may be defined in terms of 12 generic scheduling factors. The first of the factors deals with clustering. While the Curriculum Outline defines the training topics/functions in terms of the content and the number of periods for each, it does not designate the necessary scheduling together of periods of certain training topics/functions as inseparable groups and the distribution of the periods of other training topics/functions over several days. Therefore, a necessary first step is clustering, the separation and grouping of the periods of the training topics/functions into schedulable groups, called training events. Each training event consists of one or more periods of one or more training topics/functions. The specific training topics/functions and the periods of each that comprise a training event are defined by a restrictions element. The location and the number of training events which are to conform to the particular constraints of each restrictions element are also designated during clustering. Because the restrictions elements define the actual training events that are to be scheduled and where they are to occur, the remaining scheduling factors are imposed on the training events as defined by the restrictions elements rather than the training topics/functions. The factors are comprehensive and when they have been used to define the constraints applicable to each training event any subsequent schedule may be evaluated in quantitative terms. The 12 scheduling factors listed in table 1 form the criteria set which is the backbone of the BOOTS system.

With this criteria set, the BOOTS system can easily rate any MTS and look for changes that can improve it. The rating of a schedule is based on the application of a simple weighted combination of the 12 factors.

TABLE 1. MAJOR FACTORS USED IN EVALUATING A SCHEDULE

Factor	Definition	Requirement
Clustering	Formulation of a restrictions element by grouping one or more training periods from one or more training topics/functions, and designating the number of training events complying with the constraints of this restrictions element which must be assigned in the schedule	To group and/or divide the training periods allocated to the training topics and functions designated by the curriculum outline into schedulable training events (e.g., the grouping of stencilling with uniform issue or the dividing of the 32 periods of PT into several separate training events).
Assignment	Inclusion of each training event in the schedule	To ensure that every training event and thus every training element and every training topic or function in the Curriculum Outline is included in the schedule.
Blocking	Preferred scheduling of two or more different training events together	To logically group compatible training events when constraints do not dictate otherwise (e.g., the grouping of Company Commander time before a scheduled barracks inspection).
Type Smoothing	Dispersion of similar types of training events	To avoid the concentration of any one type of training on any one day (e.g., the banning of more than one session of physical training on any single day).
Separation	Prescribed minimum and/or maximum number of days between pairs of training events	To maintain prescribed periods of time between certain medical functions or to establish sufficient time between training events for necessary auxiliary functions to have occurred (e.g., a 2-week period between the pre-classification briefing and classifying to allow time for all necessary paper work to be accomplished).

TABLE 1. MAJOR FACTORS USED IN EVALUATING A SCHEDULE (continued)

Factor	Definition	Requirement
Congruence	Keep all variations of a given schedule as similar as possible	Because all companies which start training in the same week must Pass-in-Review on the same day of the final week, their schedules must be different at least during the last week of training. However, because these same companies compete against each other in the competitive inspections and testing system, their training schedules should be as identical as possible.
Day Precedence	Prescribed day-of-training relationship one training event must have to another	To maintain a required order of precedence of training for one or more training events (e.g., the 1st academic test must be preceded by all of the training that is tested by it).
Period Precedence	Proscription from having certain training events precede certain other training events on the same day	To avoid scheduling certain types of training events in incompatible orders (e.g., innoculations must not be followed, on the same day, by physical training).
Window	Days/periods of training in which a particular training event may be scheduled	To establish those days and periods of training upon which a training event may be (and may not be) scheduled (e.g., The Uniform Code of Military Justice must be scheduled during the first three days of training; or, that the issuing of uniforms must be during those periods that supply is open).
Preference	Relative preference for scheduling the training event for each day/period of the window	To distinguish between those days and periods on which it is highly desirable to schedule a training event from those on which it is less desirable (but still feasible) (e.g., it would be most desirable to schedule the final performance evaluation the last day of training with decreasing desirability as the distance from that day increases; or, it would be most desirable to schedule physical training early in the morning, with decreasing desirability as the day wore on).

TABLE 1. MAJOR FACTORS USED IN EVALUATING A SCHEDULE (continued)

Factor	Definition	Requirement
Capacity	Keeping the number of companies using a training area less than or equal to its capacity at all times	To avoid exceeding the physical capacity of any training area during any period of any day of the week.
Movement	Restricting the movements from one training area to another to those moves which may be accomplished within a prescribed time, and to minimize total movement	To avoid having the training area of one training event so far from the training area of the preceding training event that it cannot be reached in the allotted between-periods time (e.g., the scheduling of physical training on the drill field following a barracks inspection in San Diego).

SECTION III

OVERVIEW OF THE BASIC ORGANIZING/OPTIMIZING TRAINING SCHEDULER (BOOTS)

This section provides an overview of the Basic Organizing/Optimizing Training Scheduler (BOOTS).[4] It contains a discussion of the System Architecture, Data File Organization, File Editors, Processing Programs, Output Programs, and System Options.

BOOTS SYSTEM ARCHITECTURE

The architecture of the BOOTS system is based on the following three major functions:

- input and editing of data files
- schedule processing
- output of schedule and data files.

Figure 1 depicts the BOOTS system architecture in terms of these three functions.

To accomplish the first function, the BOOTS system contains several file editors. The file editors are used to develop the specific data files associated with a particular scheduling problem. A different set of data files is required for each RTC since each file is dependent upon the unique resources and facilities layout at each RTC.

The second function, schedule processing, implements the Schedule File Editor.[5] The Schedule File Editor uses the data files developed by the first function to generate a coded version of the schedule which is then stored in the Schedule File.

The third function uses the Lineprinter Output Generator (LOG) to print copies of intermediate and final versions of the different data files and schedule files and the schedule extracts required by the different RTC department heads. With these three functions the BOOTS can assist in generating Master Training Schedules encompassing a wide range of scheduling objectives and constraints.

DATA FILE ORGANIZATION

The following paragraphs describe the files which are a part of the

[4]A more complete description of the BOOTS system is contained in F. Laurence Keeler and Richard L. Church, The Basic Organizing/Optimizing Training Scheduler (BOOTS) System Overview. Technical Report 150. September 1983. Training Analysis and Evaluation Group, Orlando, FL 32813.

[5]Two programs have been designed for support of this function, an Interactive Mode Processor (IMP) and the Heuristic Optimizing Processor (HOP). HOP is not available at publication.

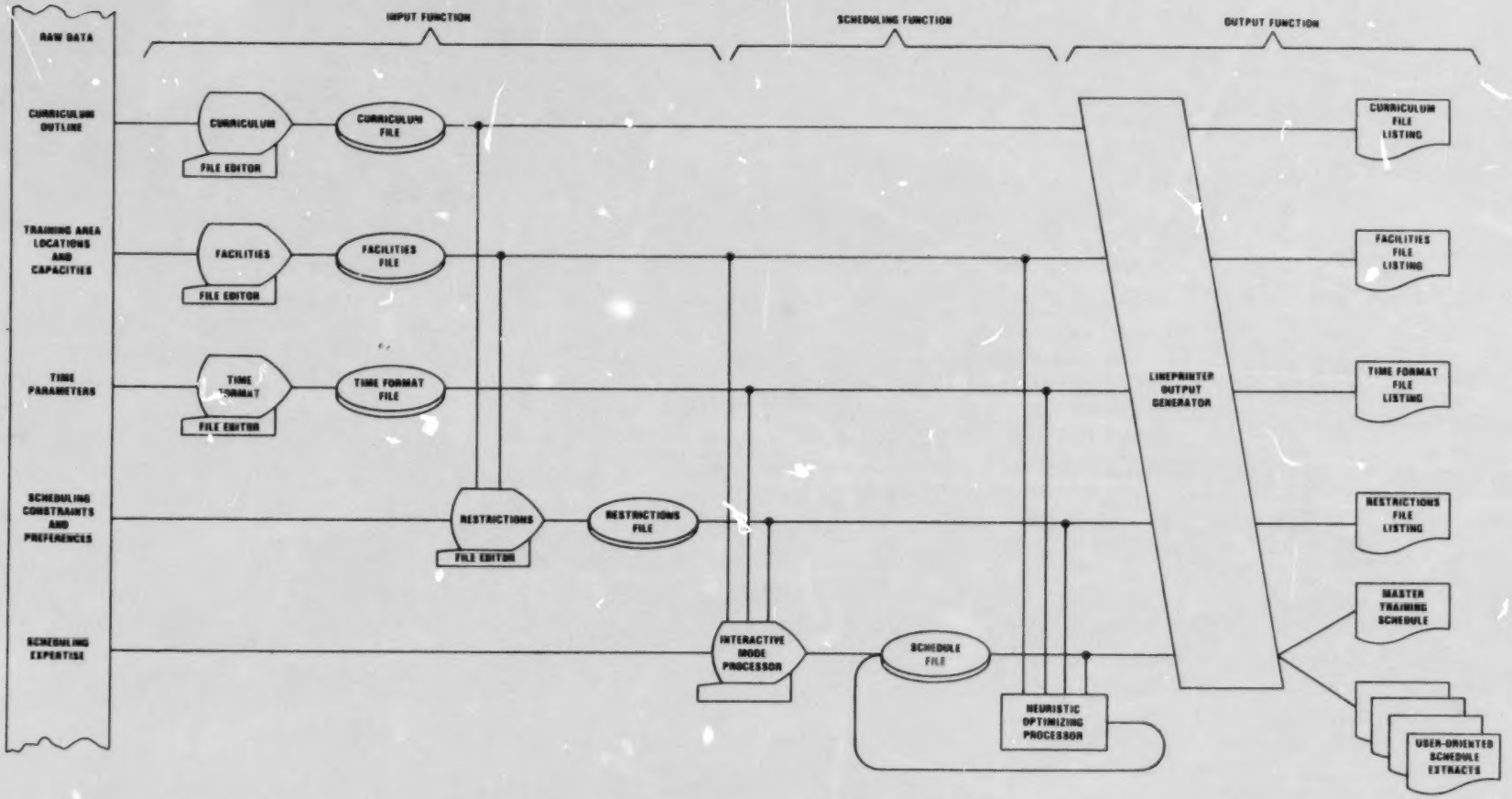


FIGURE 1. BOOTS SYSTEM ARCHITECTURE

BOOTS system. These files are listed in table 2, along with the file interdependencies, the data elements contained in each file and the scheduling factors for which that data is required.[6] The data contained in these files have been organized to minimize the amount of editing needed when changes are required. Thus, a change in the available facilities at an RTC will necessitate a change in the Facilities File but not in the Time Format File, and vice versa.

CURRICULUM FILE. The Curriculum File contains the unit topic/function number, name, and the number of periods required for each training topic and training function in the Curriculum Outline. In addition, it indicates whether all periods of the training topic/function must be part of the same training event, or may be separated for placement in different training events. Finally, as a further aid to the scheduler, space for a one character code is provided, which may be used to indicate optional user defined characteristics (e.g., which test in the curriculum the training element must precede).

FACILITIES FILE. Specific information regarding the training areas is required in order to evaluate capacity and movement factors. The Facilities File contains a list of up to 20 movement constrained and 10 nonmovement constrained training areas, with a 20 character name and the capacity of each. In addition, it contains a movement matrix which defines the measure of difficulty in getting to each movement constrained training area from any other movement constrained training area. Since each RTC has a unique physical plant, each RTC will require its own Facilities File.

TIME FORMAT FILE. The number of days of training as well as the number of training topic/functions in the curriculum outline frequently changes. In addition, the number of major schedules in operation varies. Currently there are two at RTC Orlando, three at RTC San Diego, and four at RTC Great Lakes. This information along with other time related information is contained in the Time Format File. It contains information regarding the number of major schedules, the number of training days, the number of days of congruence, the number of training days in a week, the number of periods in a day and the name and starting and ending times for each period, as well as the serving times for each meal.

RESTRICTIONS FILE. The Restrictions File contains the training elements, each defined in terms of one or more training periods of one or more training topic/functions from the Curriculum File. The Restrictions File contains a short name, the number of periods required, and the constraints applicable to each training element; e.g., the training area required, the preference for each day and each period of the day, and the training events it is to be blocked with, separated from, and preceded by. In addition, it contains the number of times this training element is to occur in the schedule. Each occurrence of a training element in the schedule is referred to as a training event. These training events are the smallest, inseparable, schedulable entities which may be manipulated by the schedule

[6] A complete listing of a data file of each type is contained in the supplement to this report.

TABLE 2. BOOTS DATA FILES

File Name	Files Referenced By This File	Files Referencing This File	Constraints/ Objectives Requiring This File	File Description
Curriculum File (rtcC____)		Restrictions File		Specifies for each training topic and function in the CNTECHTRA Curriculum Outline, the: Topic/Function Number Topic/Function Name Number of Periods If periods must be contiguous If time is critical
Facilities File (rtcF____)		Restrictions File Schedule File	Capacity/ Movement	Specifies for each training area, the: Training Area Name Number of companies it can accommodate Difficulty of movement to/from every other training area
Time Format File (rtcT____)		Schedule File		Specifies the: Number of schedules and the name, type, and days of week each may be started Number of days of Training Number of Training Days in a week Number of days in Ships Service Work Week Number of periods in a day and the name and starting time for each Periods and serving times for each meal
			Congruence	Number of days which same named schedule with different starting days will be identical (Bulkhead)
Restrictions File (rtcR____)	Curriculum File Facilities File Time Format File	Schedule File	Clustering	Defines each Restrictions Element in terms of one or more periods of one or more unit topic/ functions from the Curriculum File, and for each, the:
			Capacity/ Movement	Training area required
			Day Preference/ Window	Preference for each day
			Period Preference/Window	Preference for each period of the day
			Blocking	Restrictions Elements to be scheduled in adjacent periods if possible
			Day Precedence	Restrictions Elements that must come before/after this Restrictions Element
			Period Precedence	Restrictions Elements that must not come before/after this Restrictions Element on the same day of training
			Separation	Minimum and Maximum days of separation from a second specified Restrictions Element
			Type Smoothing	Type of Restrictions Element (Medical, Inspection, PT, etc.) Number of Training Events which must adhere to this set of restrictions
Schedule File (rtcS____)	Facilities File Restrictions File Time Format File			Specifies the day and period for each Training Event of each Restrictions Element for each schedule

processing programs, the IMP and the HOP. Since each training element consists of one or more periods from one or more training topic/functions from a Curriculum File, and must be assigned a training area and window constraints, a specific Curriculum File, specific Facilities File and specific Time Format File must be referenced by the Restrictions File.

SCHEDULE FILE. This file designates the training event assigned for each period of each day for each schedule. This information is contained in the Schedule Layout Assignment Matrix (SLAM). The SLAM is the largest array in the BOOTS and is the coded version of the MTS. The Schedule File also contains three auxiliary arrays for the additional information that is required for schedule processing. Two cross-referencing arrays, one for the training events comprised of training elements and one for meals, serve as directories as to when each training event and meal is scheduled. The third array is a facilities usage array which contains the training area usage for each period of each day of the week.

The Schedule File must reference a specific Restrictions File for data concerning the scheduling constraints applicable to the training events to be scheduled. The Restrictions File referenced must, in turn, reference a particular Curriculum File, Facilities File, and Time Format File.

FUNCTIONAL PROGRAMS

The computer programs required for accomplishing the major BOOTS functions are divided into three groups:

- file editors
- schedule processing programs
- output programs.

DATA FILE EDITORS. Each of the first four data files listed in table 2 has a file editor associated with it. The names of these file editors correspond to the associated file names and each file editor is used to input or edit the data concerning the factors controlled by that file.

SCHEDULE FILE EDITOR PROGRAMS. Two schedule processing programs are designed for creating and/or editing the Schedule File. The Interactive Mode Processor (IMP) program, which is the implementation of an interactive approach, permits the user to insert training events into the schedule and to move training events within the schedule. While doing this, it will simultaneously monitor each assignment with respect to the 12 scheduling factors (see table 1). Thus, the IMP program can instantly inform the user if a scheduling constraint has been violated, or, how many more companies may be assigned a particular training area at a particular time. The Heuristic Optimizing Processor (HOP) program is the implementation of a heuristic approach using a Lambda-Opt technique.

OUTPUT PROGRAMS. A set of programs called the Lineprinter Output Generator (LOG) exists for generating hardcopies of each of the data files and the Master Training Schedule. In addition, the programs have the capability of producing hardcopy extracts of the MTS, each designed to meet the needs of a

particular user group; e.g., Medical/Dental Department, Military Inspection Department, Basic Military Officer.

SYSTEM OPTIONS

For ease of operation by the user, the BOOTS has been designed as a menu-driven system having several major options. Each of these major options is accessed through the BOOTS Master Menu (see figure 2). The first four options invoke the file editors used in creating and editing the scheduling data files. These data files are referenced during the scheduling process which is accomplished using the fifth option to invoke the Schedule File Editor. Finally, the sixth option is used for creating hardcopies of the data and schedule files using the Lineprinter Output Generator (LOG). An annotated list of the BOOTS options is contained in table 3.

The next section contains detailed, step-by-step instructions on how to perform the functions associated with each of these options.

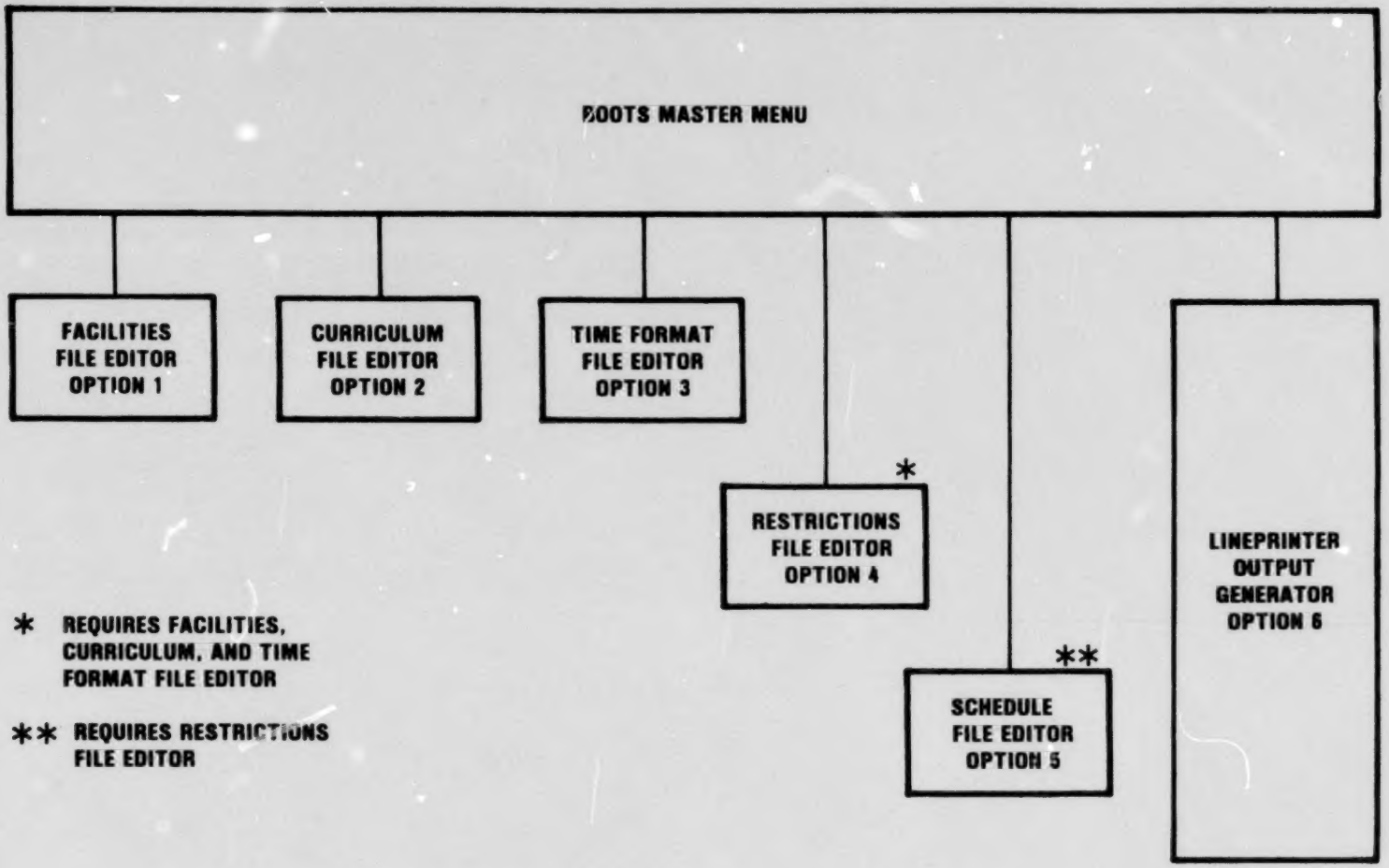

BOOTS MASTER MENU
FACILITIES FILE EDITOR OPTION 1
CURRICULUM FILE EDITOR OPTION 2
TIME FORMAT FILE EDITOR OPTION 3
RESTRICTIONS FILE EDITOR OPTION 4
*
SCHEDULE FILE EDITOR OPTION 5
**
LINEPRINTER OUTPUT GENERATOR OPTION 6
* REQUIRES FACILITIES, CURRICULUM, AND TIME FORMAT FILE EDITOR
** REQUIRES RESTRICTIONS FILE EDITOR

Figure 2. BOOTS Master Menu

TABLE 3. SYSTEM OPTIONS

Facilities File Editor (Option 1)	The Facilities File Editor allows the user to input/edit data concerning Training Areas, their capacities, and the difficulty of movement between areas.
Curriculum File Editor (Option 2)	The Curriculum File Editor allows the user to input/edit information on curriculum items including Unit/Topic number, name, number of periods, and special conditions.
Time Format File Editor (Option 3)	The Time Format File Editor allows the user to input/edit schedule parameters, period times, meal times and schedules after the Bulkhead.
Restrictions File Editor (Option 4)	The Restrictions File Editor allows the user to define Training Elements and assign Training Areas, Smoothing Types, Window restrictions, Separations, Blocking and Precedence restrictions.
Schedule File Editor (Option 5)	The Schedule File Editor using the Interactive Mode Processor allows the user to remove and replace the training events specified by the Restrictions File into the Schedule. It simultaneously monitors and alerts the user to scheduling constraint violations.
Lineprinter Output Generator (Option 6)	The Lineprinter Output Generator allows the user to make hardcopy printouts of each of the data files and the Master Training Schedule. In addition, it will prepare special schedule extracts tailored to the specific requirements of individual departments of the RTC.
Disengage BOOTS System	The Disengage BOOTS System option disengages the BOOTS system and releases the partitions in the host computer for use by other users. This option should always be used when the BOOTS system is not going to be used for several hours.

SECTION IV

GUIDE TO BOOTS SYSTEM OPERATION

This section contains detailed step-by-step instructions for using the BOOTS system. Because the order of performance for many of the required steps is critical, the steps have been numbered using an alphanumeric system in which the first character corresponds to the first letter of the type of file being edited (e.g., step C.# deals with editing the Curriculum File). Following these steps will result in the creation of a Master Training Schedule and the associated documentation files.

The major steps required for preparing a Master Training Schedule may be summarized as follows:

1. Create the required Facilities, Curriculum and Time Format Files, referencing the Curriculum Outline and other documentation as required using steps F., C., and T., respectively.

2. Create the required Restrictions File, referencing the Facilities, Curriculum and Time Format Files, and supporting documentation as required, using step R.

3. Create the Schedule File, referencing the Restrictions File and supporting documentation as required, using step S.

4. Generate the required hardcopies of the schedule, using step P.

Creating the Facilities, Curriculum, and Time Format Files, designated in the first step, may be accomplished in any order as these files have been designed to be independent of each other. The creation of the Restrictions File in the second step must, however, await the completion of the first step because the Facilities, Curriculum, and Time Format Files are referenced by the Restrictions File. Creating the schedule in the third step requires referencing all of the other files and therefore the Facilities, Curriculum, Time Format, and Restrictions Files must all have been created before the third step. Finally, hardcopies of the schedule in all of the required forms are made in the fourth step.

KEYBOARD ENTRY CONVENTIONS

Figure 3 provides a guide for locating the keys required for operating the BOOTS system. Throughout this user's guide the following convention will be adhered to for all keyboard entries:

- The underlined characters between single quote marks, '...', are to be entered sequentially one at a time. For example, 'RTC' would mean that the keys marked "R", "T", and "C" are to be depressed one at a time, in that order. (These keys are located in zone 1 of the keyboard.)

- The reversed parentheses,)...(, denote that a single program control key is to be depressed. For example,) RUN (

indicates that the single program key marked "RUN" is to be depressed. (These keys are located in zone 2 of the keyboard.)

- Single angle brackets, < ... > , denote that a single special function key is to be depressed. For example, <INSERT> indicates that the single special function key marked "INSERT" is to be depressed. (These keys are located in zone 4 of the keyboard.)

- Double angle brackets, << ... >>, denote that the shift key is to be held down while the special function key is depressed. For example, << END >> indicates that the special function key marked "END" is to be depressed while the shift key is being held down. (The shift key is located in zone 1 of the keyboard, while the special function key is in zone 4.)

- # - denotes an indefinite numeric character; that is, 0 through 9.

- x - denotes an indefinite alphanumeric character; that is, A through Z or 0 through 9.

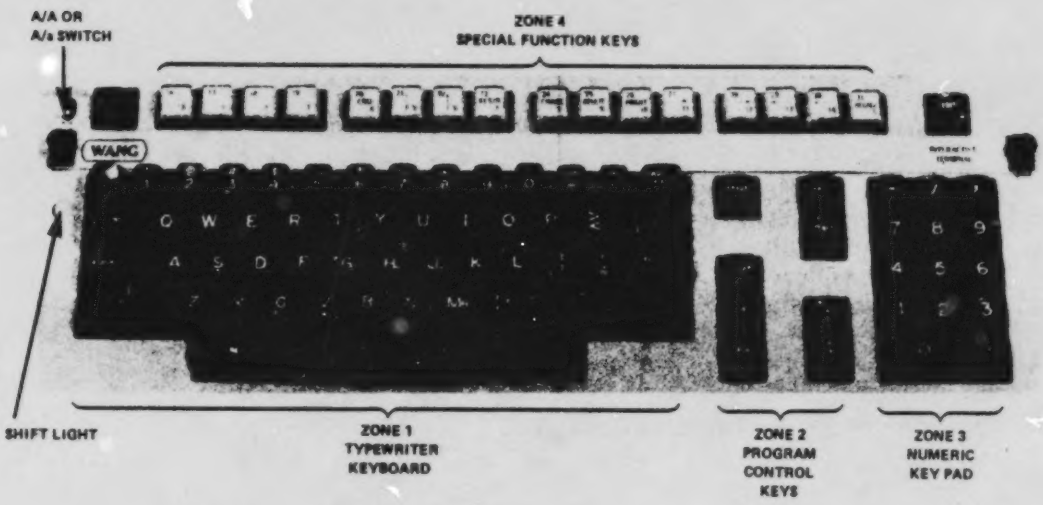


Figure 3. Guide to Key Locations on WANG 2236D Terminal Keyboard

BOOTS SYSTEM OPERATION

A flow chart to guide the user through the necessary steps required for creating a schedule using the BOOTS system is provided in figure 4. Following this flow chart along with the instructions contained in the referenced pages will result in the creation of a Master Training Schedule.

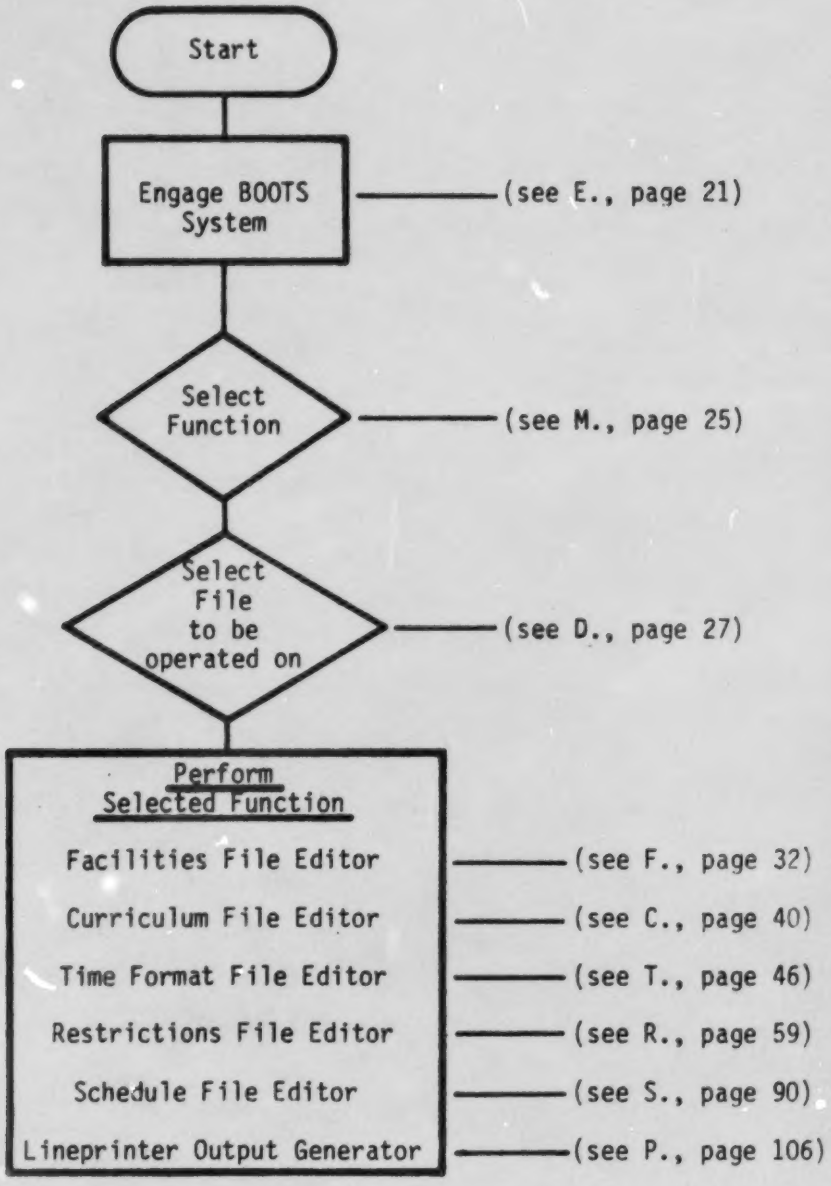


Figure 4. Flow Chart for Performing BOOTS Function

E. ENGAGE BOOTS SYSTEM

The required computer hardware must be available to the user before system use may begin. (See appendix B for hardware configuration requirements.) The terminal, and the computer and its associated disk drive, must be on and running. In addition, if the user is accessing a remote computer, that computer's modem and the terminal's modem must be on as well. Figures 5 and 6 depict typical configurations for use with a shared remote computer and an onsite computer, respectively.

If a local computer is used, it should be turned on and initialized by a qualified operator, after which engagement of the BOOTS system continues from E.1, page 22.

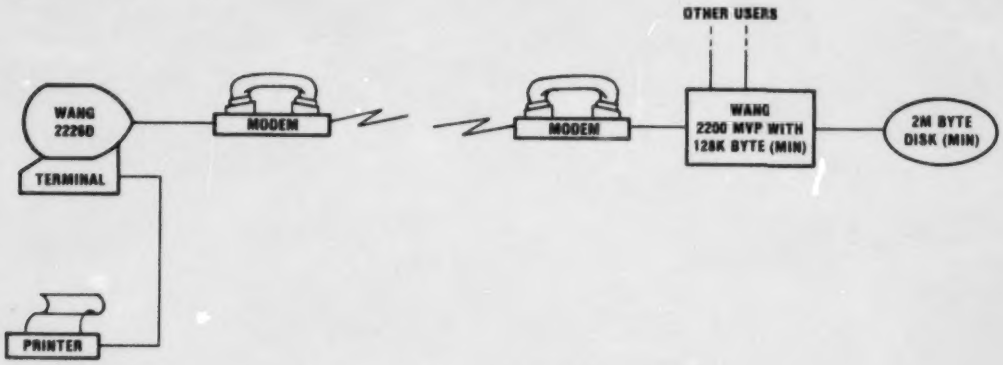


Figure 5. Typical Equipment Configuration for Shared Computer Operation

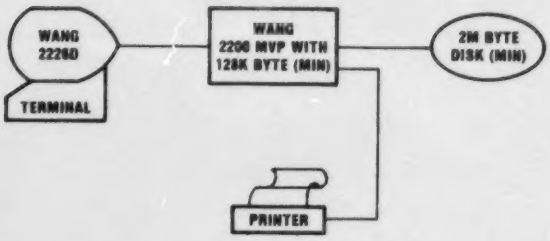


Figure 6. Typical Equipment Configuration for Onsite Computer Operation

E.a If an acoustical coupler type modem is being used, go to E.a.1 below.

If a hardwired type modem is being used, go to E.h.1, page 22.

E.a.1. Remove telephone handset from telephone cradle and dial the remote computer's data phone number (X_ _ _ _).

The computer will respond by sending a high pitched continuous audio tone.

E.a.2. Place the headset in the rubber cupped receptacles on the acoustic coupler, being sure to place the end of the receiver with the cord in the cup marked "cord."

"READY (BASIC-2) PARTITION ##"

will appear on the screen.

Go to E.1 below.

E.h.1 TURN ON the modem.

The READY LIGHT will glow.

Note: If the Ready Light does not glow, call the remote computer operator (X_ _ _ _) to verify that the computer and its modem are operating.

E.h.2 Depress:

<RESET>*

"READY (BASIC-2) PARTITION ##" will appear on the screen.

Go to E.1 below.

E.1 Depress:

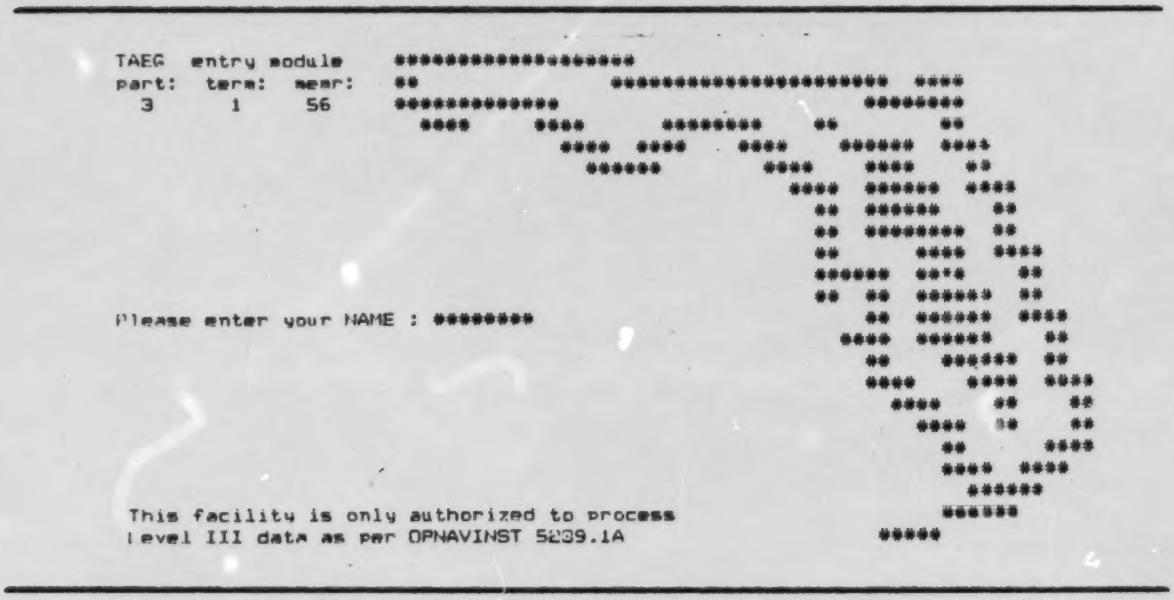
)LOAD(

)RUN(

)RETURN(

*See figure 3 for a guide to locating the special function keys on the terminal keyboard.

The following menu form will be displayed on the screen.


TAEG entry module
part: term: memr:
3 1 56
Please enter your NAME : ********
This facility is only authorized to process
level III data as per OPNAVINST 5239.1A

E.2 Enter your name:

'NAME'

)RETURN(

(This will allow the computer operator to know who is using the system and to allocate its use efficiently.)

The following prompt will be added to the display:

"Please enter your PASSWORD: ########"

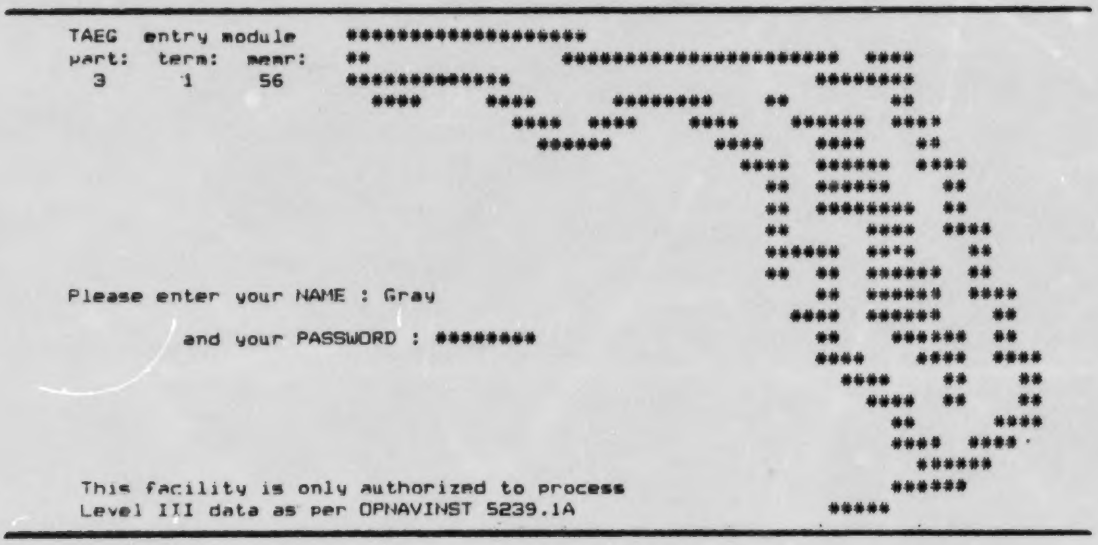
E.3 ENTER

'password'*

)RETURN(

*A unique password may be selected by each command using the BOOTS to prevent unauthorized access to the schedules and data files. The password for your site has been given to the Scheduling Officer or other person in charge of scheduling at your site.

When the password is entered the following menu will appear, indicating that the BOOTS system is engaged and ready for use.


TAEG entry module
part: term: memr:
3 1 56
Please enter your NAME : Gray
and your PASSWORD : ********
This facility is only authorized to process
Level III data as per OPNAVINST 5239.1A

Go to M., page 25, for instructions on selecting the desired Master Menu options.

M. FUNCTION SELECTION

The order of performance is critical for many of the required functions. The Restrictions File must reference a Facilities File, a Curriculum File, and a Time Format File. Therefore, the Facilities File, Curriculum File, and Time Format File must be created before the Restrictions File may be created. Similarly, the Restrictions File is referenced by the Schedule File and must, therefore, be completed before the Schedule File may be created. The Lineprinter Output Generator (LOG) may be used at any time to create hardcopies of the files that have been created up to that time.

The Function which disengages the BOOTS system should be used whenever the system is not going to be used for an extended period of time; e.g., during lunch or at the close of the day. Disengaging the BOOTS system frees the hardware to allow other users sharing the computer to use the equipment. It also protects against unauthorized access to the BOOTS system files. The BOOTS system should always be disengaged before turning the power off at the terminal and modem.

The BOOTS Master Menu is displayed below.

```
                    BOOTS Master Menu

  Option!      Available Options
        !
  1     !  Facilities File Editor
  2     !  Curriculum File Editor
  3     !  Time Format File Editor
  4     !  Restrictions File Editor
  5     !  Schedule File Editor
  6     !  Lineprinter Output Generator (LOG)
        !
        !
<END>   !  Disengage BOOTS system
        !

                                        Enter Desired Option:
```

M.1 Select the function to be performed from those displayed on the BOOTS Master Menu by depressing the corresponding number:

'#'

If Function 6, "Lineprinter Output Generator (LOG)" is selected, go to section P., page 106.

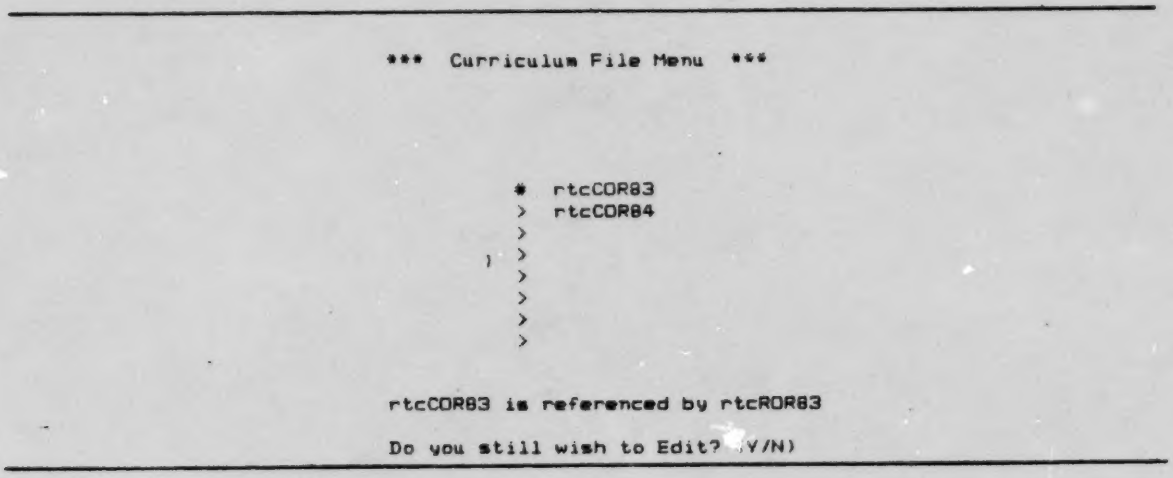
If a file editor is selected, the file menu for the selected editor will appear. The file menus for all of the editors are similar. A file menu for the Curriculum Files is shown below.

```
                    *** Facilities File Menu ***

                                    * rtcFOR83
                                    > rtcFGL83
                                    >
                                    >
                                    >
                                    >
                                    >
                                    >

  Options:

    'spacebar' - address next file                  <INSERT> - add a new file

    'backspace' - address previous file             <EDIT>   - edit this file

                                                    <DELETE> - delete this file

      <END>      - EXIT Facilities File Editor       'X'    - rename/edit this file
```

M.2 Go to section D., page 27, for instructions on the use of the data file menu options.

D. FILE MENU OPTIONS

The file* menu for the option selected in section M "Function Selection," will be displayed. The file menu for the Curriculum File Editor is displayed below.



*File names are restricted to no more than eight characters. The following conventions apply to names for all BOOTS system data files:

1. The first three characters will be "rtc"

2. The fourth character will be:

   "F" - if the file is a Facilities File
   "C" - if the file is a Curriculum File
   "T" - if the file is a Time Format File
   "R" - if the file is a Restrictions File
   "S" - if the file is a Schedule File

3. The last four characters are user selectable. (For example, the user may elect to let the day and month dictate the last four characters. Thus a schedule created on July 4, 1976, could be designated "rtcS04JU." Alternately, the user might elect to use the last character to designate a mobilization file. Thus "rtcTju3M" would identify a Time Format File created in July 83 for a mobilization schedule.)

The File Menu options allow the user to perform the following:

- insert a new file in the file menu
- delete a file from the file menu
- select a file from the file menu for editing
- select a file from the file menu and assign a new name to it before editing
- exit the file menu options and return to the BOOTS Master Menu.

D.0 For detailed instructions on how to:

address a file in the displayed menu of files — see D.1, page 28

insert a new file in the file menu — see D.2, page 29

select a file for editing — see D.3, page 29

assign a new name to a file before editing the addressed file — see D.4, page 30

delete a file from the file menu — see D.5, page 30

return to the BOOTS Master Menu. — see D.6, page 31

D.1 To ADDRESS one of the displayed files,

D.1.1 Depress:

'spacebar' and/or 'backspace'

until the cursor (▶) is opposite the file to be addressed.

The file name opposite the cursor (▶) identifies the file which is being addressed.

D.1.2 Return to section D.0 above to select another File Menu option.

D.2 To INSERT a new file,

D.2.1 Depress:

< INSERT >

" ▶ rtcX----" (where "X" stands for C, F, T, R, or S as appropriate)

will be added to the File Menu display.

D.2.2 Complete the eight character file name by entering a four character code which will uniquely identify the new file.

'xxxx' (where "xxxx" stands for any four characters the user selects)

)RETURN((necessary only if less than four characters are entered)

The BOOTS system will create the new file.

D.2.3 Go to D.7, page 31.

D.3 To SELECT a file for editing,

D.3.1 ADDRESS the file to be edited using 'spacebar' and/or 'backspace'. (see D.1, page 28)

D.3.2 Depress:

< EDIT >

If the addressed file is not referenced by another file, the BOOTS system will load the addressed file.

Go to section D.7, page 31.

If the addressed rtcXxxxx File is referenced by another file, the following will be added to the display:

"rtcXxxxx is referenced by rtcXxxxx.
Do you still wish to edit? (Y/N)"

D.3.2.1 If you do wish to edit the addressed file, depress,

'Y'

The addressed file will be loaded.

Go to D.7, page 31.

D.3.2.2 If you wish to avoid editing the referenced rtcXxxxx file, depress:

'N'

The File Menu will return without affecting the referenced file.

Return to D.0, page 28, to select another File Menu option.

D.4 To RENAME (and edit) an existing file,

D.4.1 ADDRESS the file which is to be renamed using the 'spacebar' and/or 'backspace' commands. (see section D.1, page 28.)

D.4.2 Depress:

'X'

" ▶ rtcX_ _ _ _ " (where "X" stands for C, F, T, R or S as appropriate)

will be added to the File Menu display.

D.4.3 Complete the eight character file name by entering a four character code which will uniquely identify the new file.

'xxxx'

)RETURN((necessary only if less than four characters are entered)

The BOOTS system will create a duplicate of the addressed file and assign the new file name to it.

Go to section D.7, page 31.

D.5 To DELETE an existing file,

D.5.1 ADDRESS the file to be deleted using 'spacebar' and/or 'backspace' . (See section D.1, page 28.)

D.5.2 Depress:

<DELETE>

If the addressed file is not referenced by another file, the following line will be added to the File Menu displays:

"Are you SURE you wish to delete 'rtcXxxxx' (Y/N) ?"

D.5.2.1 If you definitely want to delete the addressed file, depress:

'Y'

The addressed file will be deleted and the File Menu display will be updated to reflect this change in the available files.

D.5.2.2 If you do not wish to delete the addressed file, depress:

'N'

The normal File Menu display will return with the files unchanged.

D.5.2.3 If the addressed file is referenced by another file, it may not be deleted until the referencing file has been deleted, or no longer references it. The following line will be added to the display:

"rtcXxxxx is referenced by rtcYxxxx and may not be deleted.
Depress)RETURN(to return to xxxxxxx File Menu."

Depress:

)RETURN(

The normal File Menu will return with the files unchanged.

D.5.3 Return to section D.0, page 28, to select another option.

D.6 To return to the BOOTS Master Menu,

D.6.1 Depress:

<END>

The File Menu will be released and the BOOTS Master Menu returned.

D.6.2 Return to section M., page 25, to select another function.

D.7 Directions to Instructions for Selected Functions:

If the Facilities File Editor was selected go to F., page 32.

If the Curriculum File Editor was selected go to C., page 40.

If the Time Format File Editor was selected go to T., page 46.

If the Restrictions File Editor was selected go to R., page 59.

If the Schedule File Editor was selected go to S., page 90.

F. FACILITIES FILE EDITOR (OPTION 1)

The Facilities File Editor is used to create new Facilities Files and to revise the information in existing Facilities Files. A Facilities File contains information concerning the training areas. A training area may be a classroom building, a drill field or other special training facility, or a special function facility; e.g., a medical/dental facility. The size of a Facilities File is limited to 30 different training areas and it is not possible to include every classroom as a separate training area. Therefore, all of the interchangeable classrooms or facilities in the same location should be included as one training area. Since the BOOTS system, as currently designed, is not capable of tracking the assignment of individual classrooms, the assignment of classrooms must be done manually. Information regarding the capacity of each training area is required in order to avoid scheduling too many companies in the same place at the same time. In addition, information as to the relative difficulty in moving a training company from any one of the training areas to any other training area is also needed to avoid movement problems between training events scheduled in adjacent training periods. The Facilities File can have up to 20 different training areas that are movement constrained and up to 10 additional training areas with no associated movement constraints.

The following data are contained in the Facilities File:

- NUMBER of training areas
- NAME of each training area
- CAPACITY of each training area
- MOVEMENT difficulty in moving from each movement constrained training area to each of the other movement constrained training areas.

When the Facilities File Editor has been selected (see section M, "Function Selection," page 25) and the Facilities File to be edited (see section D, "File Menu Options," page 27), the following Facilities File Editor display will appear:*

```
rtcFOR83                *** Facilities File Editor ***
                        movement constrained areas
          Facility              Cap.     Facility              Cap.
          --------------------  ----     --------------------  ----
        * GALLEY                 *     > RIF PSD               02
        > TRAINING BUILDING      36    > FIRE F/DAMAGE C B200  04
        > ADMIN BLDG--252        02    > MEDICAL BLDG--246--   02
        > BLUE JACKET            02    > ARMORY                02
        > FITNESS TRAIL          02    > BARBER SHOP-C.CTR     02
        > FIELD HOUSE            02    > PARADE FIELD          10
        > POOL                   02    > RIF DENTAL            02
        > SOUTH GRINDER          10    > BARRACKS              99
        > GRINDER                10    > DENTAL BLDG--246      02
        > RIF                    04    > RIF MEDICAL           02

Options:                        * (capacity limited by meal schedule)

 'spacebar' - address next facility        <INSERT> - add a new facility

 'backspace' - address previous facility    <EDIT>  - edit this facility

                                           <DELETE> - delete this facility

  <END>   - EXIT Facilities File Editor    <CTNUE>  - edit non-movement areas
```

*The file being edited is indicated in the upper left corner of the display. The display depicted is typical for a movement constrained facilities list.

Depress:

)CTNUE(

until the facilities list (movement constrained or nonmovement constrained) to be edited is displayed.

F.0 For detailed instructions on how to edit either the movement constrained areas list or nonmovement constrained areas list:

Address a training area	see F.1, page 34
Insert a new training area	see F.2, page 34
Edit the name or capacity of an existing training area	see F.3, page 35
Delete a training area	see F.4, page 36
Edit the movement matrix	see F.5, page 37
Exit the Facilities File Editor	see F.6, page 39
Edit the other set of training areas	see F., page 32

F.1 To ADDRESS one of the existing training areas,

depress:

'spacebar' and/or 'backspace' until the cursor (▶) is opposite the training area to be addressed

'spacebar' 'backspace'

The training area name opposite the cursor (▶) identifies the training area being addressed.

F.1.1 Return to F.0, above, to select another option.

F.2 To INSERT a new training area, ADDRESS the position in the list of training areas where the new training area is to be inserted using the 'spacebar' and/or 'backspace' commands. (See section F.1 above.)

F.2.1 Depress:

<INSERT>

" ---------- -- "

will be inserted in the display, and any training areas lower in the list will be pushed down one line. A flashing square (□) will prompt the entering of the new training area's name.

F.2.2 Enter the name of the new training area.

'(new training area)'

" (new training area)---"

will replace the available space as it is entered.

F.2.3 When the new training area name is complete, depress:

)RETURN(

" (new training area) 00 "

will indicate that the new name has been entered and flashing zeros (ØØ) will prompt the entering of the new training area's capacity.

F.2.4 Enter the capacity (number of companies) of the new training area:

'##' (where "##" represents a 2-digit number)

F.2.5 If only a single digit is entered, depress:

)RETURN(

" (new training area) ##"

will replace the flashing square prompting display indicating that the capacity has been entered, and the next training area will be addressed.

F.2.6 Return to section F.0, page 34, to select another option.

F.3 To EDIT a training area, ADDRESS the training area to be edited using the 'spacebar' and/or 'backspace' commands. (See section F.1, page 34.)

F.3.1 Depress:

<EDIT>

The first character in the name of the addressed training area will flash, prompting the editing of the addressed training area's name.

" existing area name--- ##"

F.3.2 If the training area name is to be changed enter the new name for the addressed training area.

'new area name'

" new area name--"

will replace the old training area name as it is entered.

F.3.3 When the new training area name is complete, or if the training name is not to be changed, depress:

)RETURN(

" new area name ##"

The first digit of the capacity of the addressed training area will flash, prompting the editing of the capacity.

F.3.4 If the capacity is to be changed ENTER the new capacity (number of companies) of the training area:

'##' (where "##" represents a 2-digit number)

" new area name ##" (with no character flashing)

will indicate that the editing of the addressed training area has been completed.

If the capacity is not to be changed, depress:

)RETURN(

" new area name ##" (with no character flashing) will indicate that the editing of the addressed training area has been completed.

F.3.5 Return to F.0, page 34, to select another option.

F.4 To DELETE a training area, ADDRESS the training area to be deleted using 'spacebar' and/or 'backspace' commands. (See F.1, page 34.)

F.4.1 Depress:

<DELETE>

The addressed training area will be erased and any training areas in lower lines of the list will be moved up to fill the vacant space.

F.4.2 Return to F.0, page 34, to select another option.

F.5 To engage the Movement Matrix Editor, depress:

< BEGIN >

The Facilities File Editor will be replaced by the Movement Matrix Editor Instructions.

```
rtcFOR83                    ***  Movement Matrix Editor  ***

The following commands are required for editing the Movement Matrix:

          < '5  >   to address element beneath the current element
          < '6  >   to address the element above the current element
          < '12 >   to address the element to the right of the current element
          < '13 >   to address the element to the left of the current element
           <END>    EXIT Facilities File Editor
          <CTNUE>  to return to Training Areas/Capacities Editor

     Depress - <RETURN> - to begin editing the Movemnet Matrix
```

Depress:

)RETURN(to begin editing the movement matrix.

The Movement Matrix Editor will be enabled and display the movement matrix.

```
rtcFOR83                    ***  Movement Matrix Editor  ***
                                 ----->                 ----->
'GALLEY     ! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00!TRAINING B! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00!ADMIN BLDG! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00 00!BLUE JACKE! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00 00 00!FITNESS TR! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00!FIELD HOUS! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00!POOL       ! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00!SOUTH GRIN! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00!GRINDER    ! 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00!RIF         ! 00 00 00 00 15 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00!RIF PSD    ! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00!FIRE F/DAM! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00 00!MEDICAL BL! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00 00 00!ARMORY     ! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 14  0 00 00 00!BARBER SHO! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00!PARADE FIE! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00!RIF DENTAL! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00!BARRACKS  ! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00!DENTAL BLD! 00 00 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00!RIF MEDICA!

          <-----                          <-----
```

The Movement Matrix array is read by reading across from the departure training area and up or down to the arrival training area. For example, the matrix above indicates a difficulty level of "15" for moving from the RIF to the barber shop and a difficulty level of "14" in moving from the barber shop back to RIF.

F.5.0 To ADDRESS an element of the movement matrix, go to F.5.1, page 39

To EDIT the value of an element of the movement matrix, go to F.5.2, page 39

To EXIT the movement matrix editor, go to F.5.3, page 39

F.5.1 To ADDRESS a particular element of the Movement Matrix, depress:

<'5> and/or <'6> and/or <'12> and/or <'13>

until the first character of the element to be addressed is flashing.

Note:

<'5> causes the next training area to be addressed for departure

<'6> causes the preceding training area to be addressed for departure

<'12> causes the next training area to be addressed for arrival

<'13> causes the preceding training area to be addressed for arrival.

F.5.1.1 Return to F.5.0, page 38, to select another option.

F.5.2 To EDIT the value of an element in the movement matrix,

ADDRESS the movement matrix element to be edited using, <'5>, <'6>, <'12> and/or <'13>. (See F.5.1 above.)

F.5.2.1 Enter the 2-digit measure of difficulty for the addressed element.

'##'

the new value entered will replace the old element value and the flashing character will automatically address the next element to permit editing it.

F.5.2.2 Return to F.5.0, page 38, to select another option.

F.5.3 To EXIT the Movement Matrix Editor, depress:

<END>

The Movement Matrix Editor will be replaced by the Facilities File Editor Exit Menu.

F.6 To EXIT the Facilities File Editor, depress:
<END>

F.6.1 Go to X.0, page 105, for data file exit options.

C. CURRICULUM FILE EDITOR (OPTION 2)

The Curriculum File Editor is used to create new Curriculum Files and to revise existing Curriculum Files. Information regarding the number of periods, and whether these periods need to be scheduled together or separately, for each training topic and training function is required for defining the restrictions elements. (A restrictions element consists of one or more periods from one or more training topics and training functions grouped for scheduling as an inseparable entity.)

The following data are contained in the Curriculum File for each training topic and training function:

- training topic/function number (e.g., "2.3")
- training topic/function name (abbreviated to 20 characters)
- number of training periods allotted
- if the periods of training must be assigned together as a block (e.g., for "Pass-In-Review") or must be distributed over several days of training (e.g., the 32 periods of "Physical Training")
- an optional user defined code (may be used to designate testable topics, etc.).

This information in the Curriculum File represents a coded version of the Curriculum Outline for U.S. Navy Recruit Training, X777-7770.

The Curriculum File Editor allows the user to perform the following operations:

- create a new Curriculum File
- edit the data in an existing Curriculum File
- change the name and edit the data from an existing Curriculum File in order to generate a new Curriculum File, without disturbing the original Curriculum File
- delete an obsolete and no longer needed Curriculum File
- return to the BOOTS MASTER MENU.

When the Curriculum File Editor has been selected (see M., "Function Selection," page 25), and the Curriculum File to be edited chosen (see D., "File Menu Options," page 27), the following Curriculum File Editor display will appear:*

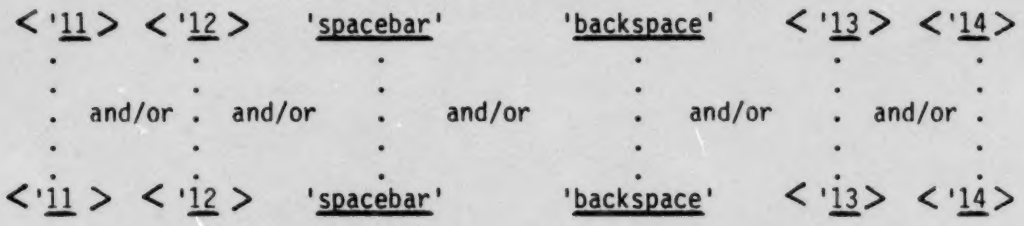
```
                    *** Curriculum File Menu ***

                                  * rtcCOR83
                                  > rtcCOR84
                                  >
                                  >
                                  >
                                  >
                                  >
                                  >

Options:

 <spacebar>  - address next file          <INSERT> -  add a new file

 <backspace> - address previous file       <EDIT>  -  edit this file

                                          <DELETE> -  delete this file

  <END>    - EXIT Curriculum File Editor    'X'    -  rename & edit this file
```

*The Curriculum File being edited is indicated in the upper left corner of the display. If this is a new Curriculum File all topic/function numbers, names, etc. will be blank. The display depicted is typical for a Curriculum File.

C.0 For detailed instructions on how to:

Address a Training Topic/Function	see C.1, page 42
Insert a new Training Topic/Function	see C.2, page 42
Edit an existing Training Topic/Function	see C.3, page 43
Delete an existing Training Topic/Function	see C.4, page 45
Exit the Curriculum File Editor	see C.5, Page 45

C.1 To ADDRESS a particular Training Topic/Function, depress:



until the cursor (▶) is opposite the Training Topic/Function to be edited.

Note:

'spacebar'	causes the next Training Topic/Function to be addressed
<'11>	causes the next page of Training Topic/Functions to be addressed
<'12>	causes the next unit of Training Topic/Functions to be addressed
'backspace'	causes the preceding Training Topic/Function to be addressed
<'14>	causes the preceding page of Training Topic/Functions to be addressed
<'15>	causes the preceding unit of Training Topic/Functions to be addressed.

C.1.1 Return to C.0, page 41, to select another option.

C.2 To INSERT a new Training Topic/Function, ADDRESS the Training Topic/Function the new Training Topic/Function is to follow. (See C.1, page 42.)

C.2.1 Depress:

<INSERT>

A blank Training Topic/Function will be inserted following the addressed Training Topic/Function. All subsequent Training Topic/Functions in the display will be moved down one line to leave room for the new Training Topic/Function to be inserted:

C.2.2 Go to C.3.2, page 43, to enter the new Training Topic/Function data.

C.3 To EDIT an existing Training Topic/Function, ADDRESS the Training Topic/Function that is to be edited. (See C.1, page 42.)

C.3.1 Depress:

< EDIT >

The first character of the Training Topic/Function number will begin to flash.

C.3.2 If the Training Topic/Function number is to be changed, enter the new Training Topic/Function number:

'##.##'

The new number will appear in the display as its digits are entered. The flashing character will address the Training Topic/Function name when the second character after the decimal has been depressed.

If the Training Topic/Function number is not to be changed, or if there is only one digit after the decimal in the number, depress:

)RETURN(

The flashing character will move to the first character of the Training Topic/Function name.

C.3.3 If the Training Topic/Function name is to be changed, enter the new name:

"new name ----------"

will replace the old Training Topic/Function name as it is entered.

If the Training Topic/Function name is not to be changed or when no more characters are to be entered, depress:

)RETURN(

The editing of the Training Topic/Function name will terminate and the first character of the total periods will begin flashing.

C.3.4 If the total periods value is to be changed, enter the new value:

'##'

'##' will replace the old value for total periods.

If the total periods value is not to be changed, or less than a 2-digit value is entered, depress:

)RETURN(

The editing of the total periods value will be terminated and the character in the MLTP/CNTG column will begin flashing.

C.3.5 If the MLTP/CNTG* entry does not require editing, depress:

)RETURN(

If the periods for this Training Topic/Function must all be scheduled contiguously, i.e., at the same time, enter:

'C'

If the periods for this Training Topic/Function must be scheduled in multiple periods; i.e., in more than one single training event, enter:

'M'

If it does not matter (or there is only one period), enter:

'_' (blank)

After any of the above entries, editing of the MLTP/CNTG value will terminate and the "Req'd by" value will begin flashing.

*The MLTP/CNTG entry is used to designate whether all periods of the topic/function are to be scheduled contiguously (C) as part of the same training event, or in multiple periods (M) as part of multiple training events.

C.3.6 The "Req'd by" column is not required for the BOOTS system. It is provided for the user's convenience to annotate special conditions (e.g., the "Req'd by" value might correspond to the Academic Test which the training topic must precede).

If an entry is to be made for the "Req'd by" value, enter the appropriate value:

'#'

If no entry is to be made for the "Req'd by" value or the current value is to remain unchanged, depress:

)RETURN(

After either of the above entries, editing of the "Req'd by" value will terminate and the first character of the "Special Cond's" value will begin flashing.

C.3.7 The "Special Cond's" column is not required for the BOOTS system. It is provided for the user's convenience to annotate special conditions (e.g., the value might correspond to a set of notes containing such special conditions as that the UCMJ must be scheduled during the first 72 hours).

If an entry is to be made for the "Special Cond's" value, enter the appropriate value:

'##'

If no entry is to be made for the "Special Cond's" value or the current value is to remain unchanged, depress:

)RETURN(

After either of the above entries, editing of the addressed Training Topic/Function will terminate and the cursor will advance to address the next Training Topic/Function.

C.3.8 Return to C.0, page 41, to select another option.

C.4 To DELETE a Training Topic/Function, ADDRESS the Training Topic/Function that is to be deleted. (See C.1, page 42.)

C.4.1 Depress:

< DELETE >

The addressed Training Topic/Function will be deleted and all subsequent Training Topic/Functions will be moved up one line to fill the vacated space.

C.4.2 Return to C.0, page 41, to select another option.

C.5 To EXIT the Curriculum File Editor, depress:

< END >

The Curriculum File Editor will be replaced by the Curriculum File Editor Exit Options Menu.

C.5.1 Go to X.0, page 105, for data file exit options.

T. TIME FORMAT FILE EDITOR (OPTION 3)

The Time Format File Editor is used to create new Time Format Files and to revise the information in existing Time Format Files. Information regarding the length of recruit training, the number of training days in a week, and the number of training periods in a day are all required prior to commencing the scheduling process. In addition to these parameters, information regarding the number of schedule tracks and the days of the week upon which companies may start them are required. Finally, temporal information regarding the starting and ending times of each training period and meal is also required. All of these time and schedule format data are contained in a Time Format File.

The Time Format File contains the following data:

- number of training days
- number of days in Ships Service Work Week
- number of training days in a week
- number of training periods in a day
- Day of the Bulkhead*
- number of companies per company schedule
- existence or absence of special companies
- number of days during Ships Service Work Week which special companies may use
- number of special companies per schedule
- total number of schedules
- name and the beginning and ending time for each training period in a day
- beginning period, ending period, and serving time for each meal (breakfast, lunch and dinner)
- name, type (regular or special purpose), and days of the training week on which companies may start, for each schedule track.

The Time Format File Editor allows the user to perform the following operations:

- create a new Time Format File
- edit the data in an existing Time Format File
- change the name and edit the data from an existing Time Format File in order to generate a new Time Format File without disturbing the original Time Format File
- delete an obsolete and no longer needed Time Format File
- return to the BOOTS Master Menu.

*The Day of the Bulkhead is the day of training before which all schedule variations will be alike; i.e., congruent regardless of the day of the week upon which training starts.

When the Time Format File Editor has been selected (see section M., "Function Selection," page 25) and the Time Format File to be edited chosen (see section D., "File Menu Options," page 27), the following Time Format File Editing Options Menu will be displayed:*

```
rtcTOR83        ***  Time Layout File Editing Options Menu  ***


                Option  !    Description
                   1    ! Edit Schedule Parameters
                   2    ! Edit Period Names and Times
                   3    ! Edit Meal Serving Times
                   4    ! Edit Schedule Names and Starting Days
                        !
                 <END>  ! EXIT Time Format File Editor


                                          Enter option: *
```

*The Time Format File being edited is indicated in the upper left corner of the display.

T.0 Detailed instructions in the use of the available Time Format File Editing Options are on subsequent pages.

To edit the Schedule Parameters	see T.1, page 48
To edit the Period Names and Times	see T.2, page 49
To edit the Meal Serving Times	see T.3, page 52
To edit the Schedule Names and Starting Dates	see T.4, page 55
To exit the Time Format File Editor	see T.5, page 58

T.1 To Edit the Schedule Parameters, depress:

'1'

The Time Format File Editing Options Menu will be replaced by the Schedule Parameters Editor display:*

```
rtcTOR83              ***  Schedule Parameters Editor  ***


   Number of training days including service work week ..... 38
   Number of days in service work week ..................... 5
   Number of days in each week (5 or 6 days) ............... 5
   Number of periods in each day ........................... 15
   Day of bulkhead ......................................... 31
   Number of companies per regular company schedule ........ 1
   Existence of drill/flag companies ( 1=YES    0=NO )...... 0
   Number of service work week days that drill/flag companies can use 0
   Number of drill/flag companies per schedule ............. 0
   Total number of schedules ............................... 2

Edit Commands:

<RETURN> - address next parameter

<backspace> - address prev. parameter        '##'  - replace value with ##

          <CTNUE> - return to Schedule Parameters Editor Menu
```

*If a new Time Format File is being created, all parameter values will be "0". The first character of the parameter being addressed flashes to indicate the addressed parameter.

For instructions in the use of the Schedule Parameters Editor:

To Address a particular Schedule Parameter see T.1.1, page 48

To Edit a particular Schedule Parameter see T.1.2, page 49

To Exit the Schedule Parameter Editor see T.1.3, page 49

T.1.1 To ADDRESS a particular parameter,

T.1.1.1 Depress:

)RETURN(and/or 'backspace'

until the first character of the parameter to be addressed is flashing.

Note:

)RETURN(causes the next parameter to be addressed.

'backspace' causes the preceding parameter to be addressed.

T.1.1.2 Return to T.1, page 48, to select another Schedule Parameter Editing option.

T.1.2 To EDIT a parameter value, ADDRESS the parameter to be changed (see T.1.1, page 48), then depress:

'##'

The entered value will replace the old value and the next parameter will be addressed. (If an unacceptable value is entered, the value will be rejected and an appropriate value must be entered.)

T.1.2.1 Return to T.1, page 48, to select another Schedule Parameters Editing Option.

T.1.3 To return to the Time Format File Editing Options Menu (when all schedule parameters are set), depress:

)RECALL(

The Schedule Parameters Editor will be replaced by the Time Format File Editing Options Menu.

T.1.3.1 Return to page T.0, page 47, to select another Time Format File Editor option.

T.2 To Edit the Period Names and Times, depress:#

'2'

#If a new Time Format File is being created, the Period Names and Times may not be edited until the Schedule Parameters have been set (See T.0, page 47.)

The Time Format File Editing Options Menu will be replaced by the Period Names and Times Editor display:*

```
rtcTOR83          ***  Period Names and Times Editor  ***

                        !Period! begin     end   !
                        ! Name ! time      time  !
                        !------+-----------------!
                        ! #M1   !  0500 - 0550   !
                        !  M2   !  0600 - 0650   !
                        !  M3   !  0700 - 0740   !
                        !  1    !  0820 - 0900   !
                        !  2    !  0910 - 0950   !
                        !  3    !  1000 - 1040   !
                        !  4    !  1050 - 1130   !
                        !  5    !  1140 - 1220   !
                        !  6    !  1230 - 1310   !
                        !  7    !  1320 - 1400   !
                        !  8    !  1410 - 1450   !
                        !  9    !  1500 - 1540   !
                        !  10   !  1550 - 1630   !
                        !  11   !  1640 - 1720   !
Edit Commands:          !  E1   !  1730 - 2000   !
                        ------------------------

  <backspace> - address prev. period      <EDIT>  - edit this period
   <RETURN>   - address next period
   <RECALL>   - address prev. collumn     <CTNUE> - return editor options menu
```

*The cursor (▶) indicates the period currently being addressed. If the new Time Format File is being created, the names will be blank and the times will all be "0000".

For instructions in the use of the Period Names and Times Editor:

To Address a particular period — see T.2.1, page 50

To Edit a particular period name and times — see T.2.2, page 51

To Exit the Period Names and Times Editor — see T.2.3, page 52

T.2.1 To ADDRESS a particular period:

T.2.1.1 Depress:

)RETURN(and/or 'backspace' until the cursor (▶) is opposite the period to be addressed

Note:

)RETURN(causes the next period to be addressed.

'backspace' causes the preceding period to be addressed.

T.2.1.2 Return to T.2, page 49, to select another Period Name and Times Editor option.

T.2.2 To EDIT a period name and times, ADDRESS the period to be edited using)RETURN(and/or 'backspace'. (See T.2.1.1, page 50.)

T.2.2.1 Depress:

< EDIT >

The first character of the Period Name will flash, prompting the user to enter the Period Name.

T.2.2.2 If the Period Name is to be changed, enter:

'xx' (where "xx" represents the new 2-character name)

If the Period Name is to remain unchanged, depress:

)RETURN(

After either of the above actions, the flashing character will move to the first character of the Period Begin Time, prompting the user to enter the Period's starting time.

T.2.2.3 If the Period Begin Time is to be changed, enter:

'####' (where "####" represents the new period starting time)

The new Period Begin Time will be displayed as it is entered.

If the Period Begin Time is to remain unchanged, depress:

)RETURN(

After either of the above actions, the first character of the Period End Time will become the flashing character, prompting the user to enter the period ending time.

T.2.2.4 If the Period End Time is to be changed, enter:

'####' (where "####" represents the new ending time)

The new Period End Time will be displayed as it is entered.

If the Period End Time is to remain unchanged, depress:

)RETURN(

After either of the above actions, the cursor (▶) will move down and address the next period.

T.2.2.5 Return to T.2, page 49, to select another Period Names and Times Editor option.

T.2.3 To exit the Period Names and Times Editor, depress:

)RECALL(

The Period Names and Times Editor will be replaced by the Time Format File Editing Options Menu.

T.2.3.1 Return to page T.0, page 47, to select another Time Format File Editing option.

T.3 To edit the Meal Serving Times, depress:#

'3'

#If a new Time Format File is being created, the Meal Serving Times may not be entered until the Period Names and Times have been entered.

The Meal Serving Times Editor display will appear:*

```
rtcTOR83          ***  Meal Arival and Departure Times Editor  ***


 Meal <Time> SPDs    Meal <Time> SPDs    Meal <Time> SPDs    Meal <Time> SPDs
*B  1 < 500> M1 M1   B 11 < 530> M1 M1   B 21 < 550>bM1 M2a  B 31 < 540>bM1 M2a
 B  2 < 500> M1 M1   B 12 < 530> M1 M1   B 22 < 550>bM1 M2a  B 32 < 510> M1 M1
 B  3 < 500> M1 M1   B 13 < 530> M1 M1   B 23 < 600>bM1 M2a  B 33 < 620> M2 M2
 B  4 < 510> M1 M1   B 14 < 530> M1 M1   B 24 < 600>bM1 M2a  B 34 < 520> M1 M1
 B  5 < 510> M1 M1   B 15 < 540>bM1 M2a  B 25 < 600>bM1 M2a  B 35 < 630> M2 M2
 B  6 < 510> M1 M1   B 16 < 540>bM1 M2a  B 26 < 600>bM1 M2a  B 36 < 520> M1 M1
 B  7 < 520> M1 M1   B 17 < 540>bM1 M2a  B 27 < 610> M2 M2   B 37 < 640>bM2 M3a
 B  8 < 520> M1 M1   B 18 < 540>bM1 M2a  B 28 < 610> M2 M2   B 38 < 640>bM2 M3a
 B  9 < 520> M1 M1   B 19 < 550>bM1 M2a  B 29 < 610> M2 M2   B 39 < 640>bM2 M3a
 B 10 < 520> M1 M1   B 20 < 550>bM1 M2a  B 30 < 610> M2 M2   B 40 < 650>bM2 M3a

Edit Commands:

  < '5 >  -  address next set of meals
                                                <EDIT> - edit this meal's serving time
  <RETURN> - address next meal
  <BACKSPACE> - address previous meal           <CTNUE> - return editor options menu
```

*The cursor (▶) indicates the meal currently being addressed. If a new Time Format File is being created the times will all be "0000" and the periods will be blank.

For instructions in the use of the Meal Serving Times Editor,

To Address a particular set of meals (breakfast, lunch or dinner), see T.3.1, page 54

To Address a particular meal in the addressed set of meals, see T.3.2, page 54

To Edit the arrival time for a particular meal, see T.3.3, page 54

To Exit the Meal Serving Times Editor see T.3.4, page 55

T.3.1 To ADDRESS a particular set of meals (breakfast, lunch, dinner), depress:

< '5 >

until the desired set of meals is displayed.

Note: < '5 > causes the next set (breakfast, lunch, dinner) of meals to be displayed.

T.3.1.1 Return to T.3, page 52, to select another option.

T.3.2 To ADDRESS a particular meal in the addressed set of meals, depress:

)RETURN(and/or 'backspace' until the cursor (▶) is opposite the meal to be addressed.

Note:)RETURN(causes the next meal to be addressed.

'backspace' causes the previous meal to be addressed.

T.3.2.1 Return to T.3, page 52, to select another option.

T.3.3 To EDIT a meal serving time, address the set of meals to which the meal to be edited belongs (see T.3.1 above).

T.3.3.1 ADDRESS the meal to be edited (see T.3.2, above) and depress:

< EDIT >

The first character of the meal serving time value will flash, prompting the entering of the new serving time.

T.3.3.2 Enter the new serving time:*

'####' (where "####" represents the serving time on a 2400 hour clock)

The new serving time will be displayed as it is entered. When the last character is entered, the beginning and ending periods,# required for a meal with that serving time will be displayed, and the next meal will be addressed by the cursor (▶).

*The serving time for each meal should be between "0000" and "2400" and should be equal to or greater than the serving times of all meals which precede it. If less than 40 meals are to be utilized, enter "0000" as the serving time for all unused meals (which must be the highest numbered meals).

#Based upon the beginning period being the latest period which starts at or later than the meal serving time, and the ending period being the earliest period which ends at least 20 minutes after the serving time.

T.3.3.3 Return to T.3, page 52, to select another Meal Serving Times Editor option.

T.3.4 To EXIT the Meal Serving Times Editor, depress:

)CTNUE(

The Meal Serving Times Editor will be replaced by the Time Format File Editing Options Menu.

T.3.4.1 Return to T.0, page 47, to select another Time Format File Editing option.

T.4 To EDIT the Schedule Names and Starting Days, depress:

'4'

The Time Format File Editing Options Menu will be replaced by the Schedule Names and Starting Days Editor display:*

```
rtcTOR83          ***  Schedules Names and Starting Days Editor  **

+--------------------+------+---------+---------+---------+---------+---------+
|       Names        | Flag |    M    |    T    |    W    |    R    |    F    |
+--------------------+------+---------+---------+---------+---------+---------+
|* ALPHA             |  R   |    1    |    1    |    1    |    1    |    1    |
+--------------------+------+---------+---------+---------+---------+---------+
|  BRAVO             |  R   |    1    |    1    |    1    |    1    |    1    |
+--------------------+------+---------+---------+---------+---------+---------+
|                    |  R   |         |         |         |         |         |
+--------------------+------+---------+---------+---------+---------+---------+
|                    |  R   |         |         |         |         |         |
+--------------------+------+---------+---------+---------+---------+---------+

Options:
          <RETURN> - address next schedule
           <EDIT>  - edit schedule name and/or starting days
          <CTNUE> - return editor Options Menu
```

*The cursor (▶) indicates the schedule being addressed. If a new Time Format File is being created the names and days columns will all be blank. The display depicted indicates that the "Alpha" schedule may be started on any day M-F, while the "Bravo" schedule may be started on M, W, or F.

For instructions on the use of the Schedule Names and Starting Days Editor:

To Address a particular schedule — see T.4.1, page 56

To Edit a particular schedule and starting days — see T.4.2, page 56

To Exit the Schedule Names and Starting Days Editor — see T.4.3, page 57

T.4.1 To ADDRESS a different schedule, depress:

)RETURN(until the cursor (▶) is opposite the schedule to be addressed.

Note:)RETURN(causes the next schedule to be addressed.

T.4.1.1 Return to T.4, page 55, to select another option.

T.4.2 To EDIT a schedule name and starting days, ADDRESS the schedule to be edited (See T.4.1 above.)

T.4.2.1 Depress:

< EDIT >

The first character of the addressed schedule's name will flash, prompting the entry of a new name.

T.4.2.2 If the schedule name is to be changed, enter:

'new name'

The new name will be displayed as it is entered.

T.4.2.3 Depress:

)RETURN(

After)RETURN(is depressed, the character in the Type column will begin flashing, prompting the editing of the type of schedule.

T.4.2.4 If the schedule is a regular companies schedule, depress:

'R'

If the schedule is a special companies schedule, depress:

'S'

If the schedule type is not to be changed, depress:

)RETURN(

After any of the three entries above, the Type column will contain an "R" or an "S" and the number in the first day column will begin flashing to indicate the addressed day of the week of that addressed schedule.

T.4.2.5 If a company on the addressed schedule may start on that day of the week, depress:

'1'

If a company on that schedule may not start on that day of the week, depress:

'0'

If the addressed day's status for the addressed schedule is not to be changed, depress:

)RETURN(

A "1" or "0" will be displayed in the addressed day's column indicating that a company on the addressed schedule may or may not (respectively) commence training on that day of the week and the number in the next day's column will begin flashing to prompt the editing of that day's status.

T.4.2.6 If each day of the week has not been addressed, repeat T.4.2.5 until each day has been addressed.

When each day of the week of the addressed schedule has been addressed, the cursor (▶) will address the next schedule.

T.4.2.7 Return to T.4, page 55, to select another option.

T.4.3 To exit the Schedule Names and Starting Days Editor, depress:

)RECALL(

The Schedule Names and Starting Days Editor will be replaced by the Time and Format File Editing Options Menu.

T.4.3.1 Return to T.0, page 47, to select another Time Format File Editing Option.

T.5 To EXIT the Time Format File Editor, depress:

< END >

T.5.1 Go to X.0, page 105, for data file editor exit options.

R. RESTRICTIONS FILE EDITOR (OPTION 4)

The Restrictions File Editor is used to create new Restrictions Files and to revise existing Restrictions Files. A Restrictions File contains the training events defined in terms of the training elements designated in the Curriculum File. These training events are the smallest, inseparable, schedulable entities which may be manipulated by the Schedule File Editor. In addition to a short name and the number of periods required, the Restrictions File contains the other constraints applicable to each training event; e.g., the training area required, the preference for each day and each period of the day, and the training events it is to be blocked with, separated from, and preceded by. Since each training event consists of one or more periods from one or more training elements from a coded Curriculum File, and must be assigned a training area and scheduling preferences for both day and period, a specific Curriculum File, specific Facilities File, and specific Time Format File must be referenced by the Restrictions File.

The following data for each restrictions element are contained in a Restrictions File:

- name (abbreviated to 20 characters)
- total number of periods in this element
- number of training events adhering to the scheduling constraints prescribed by this restrictions element which are to be scheduled
- number of periods from each of one or more training topics and training functions of which this restrictions element is comprised
- training area required by this restrictions element
- training days on which the training events adhering to this restrictions element's constraints may be scheduled, and the relative preference for each of these days
- training periods in which the training events adhering to this restrictions element's constraints may be scheduled, and the relative preference for each of these periods.

In addition, if special scheduling constraints exist for the restrictions element, the Restrictions File will contain the following additional information for those constraints:

Separation - those restrictions elements whose training events must be separated from the training events of another restrictions element and the minimum and maximum separation permitted

Smoothing Type - the type of restrictions elements (Academic Tests, Inspections, etc.) with which other training events of the same type should not be scheduled on the same day

Blocking - those restrictions elements whose training events should be scheduled adjacent to its training events when possible

Precedence Day - those restrictions elements whose training events must be scheduled before this restrictions element's training events and those restrictions elements whose training events must be scheduled later than this restrictions element's training events in the schedule

Precedence Period - those restrictions elements whose training events may not be scheduled in an earlier period on the same day of training as this restrictions element's training events and those restrictions elements whose training events may not be scheduled in a later period on the same day of training as this restrictions element's training events.

The Restrictions File Editor allows the user to perform the following operations:

- create a new Restrictions File
- change the Curriculum File referenced
- change the Time Format File referenced
- change the Facilities File referenced
- edit the data in an existing Restrictions File
- change the name and edit the data from an existing Restrictions File in order to create a new Restrictions File, without disturbing the original Restrictions File
- delete an obsolete and no longer needed Restrictions File
- return to the BOOTS Master Menu.

When the Restrictions File Editor has been selected (see M., "Function Selection," page 25) and the Restrictions File has been chosen (see D., "File Menu Options," page 27), the following Restrictions File Editing Options Menu will be displayed:*

```
                *** Restrictions File Editing Options Menu ***

                rtcROR83      ( rtcCOR83 + rtcFOR83 + rtcTOR83 )


   Option!    + Available Options
          !
      C   !  Assign/Reassign Curriculum File
      F   !  Assign/Reassign Facilities File
      T   !  Assign/Reassign Time Format File
          !
      1   !  Define Restriction Elements
      2   !  Assign Training Areas
      3   !  Assign Window Restrictions
      4   !  Assign Smoothing Type Restrictions
      5   !  Assign Separation between Restriction Elements
      6   !  Assign Blocking of Restriction Elements
      7   !  Assign Precedence to Restriction Elements
          !
  <END>   !  EXIT Restrictions File Editor

                                                  Enter Desired Option:
```

*The Restrictions File being edited is indicated in the upper left corner of the display.

R.0 Detailed instructions for the use of the Restrictions File Editing Options# are contained in subsequent pages as follows:

To assign the Curriculum File to be referenced	see R.C, page 62
To assign the Facilities File to be referenced	see R.F, page 63
To assign the Time Format File to be referenced	see R.T, page 64
To define the Restrictions Elements	see R.1, page 65
To assign the training areas	see R.2, page 71
To assign window restrictions	see R.3, page 73
To assign smoothing type restrictions	see R.4, page 77
To assign separation between restrictions elements	see R.5, page 79
To assign blocking of restrictions elements	see R.6, page 83
To assign precedence to restrictions elements	see R.7, page 86
To Exit the Restrictions File Editor	see R.8, page 89

#When creating a new Restrictions File, the Referenced Files must be assigned first followed by the defining of the Restrictions Elements (Option R.1), before any of the remaining options are invoked.

R.C To assign a different Curriculum File for referencing, depress:

'C'

The following Curriculum Files for Referencing Menu will be displayed.

```
          *** Restrictions File Referencing Menu      ***

           rtcROR83      [ rtcCOR83 + rtcFOR83 + rtcTOR83 ]

      Select the Curriculum File to be referenced by rtcROR83

                                 *  rtcCOR83
                                 >  rtcCOR84
                                 >
                                 >
                                 >
                                 >
                                 >
                                 >

Options:

<spacebar>  - address next file          <EDIT>  - reference this file

<backspace> - address previous file


 <CTNUE>  - return editing options menu
```

R.C.1 To ADDRESS the Curriculum File to be referenced, depress:

)RETURN(or 'backspace' until the cursor (▶) is opposite the Curriculum File to be addressed.

R.C.2 To assign the addressed Curriculum File for referencing, depress:

< EDIT >

The addressed Curriculum File will be assigned as the referenced Curriculum File. The display will be updated to reflect this change, and the Curriculum File for Referencing Menu will be replaced by the Restrictions File Editing Options Menu.

R.C.3 Return to R.O, page 61, to select another Restrictions File Editor Option.

R.F To assign a different Facilities File for referencing, depress:

'F'

The following Facilities Files for Referencing Menu will be displayed.*

```
          ***  Restrictions File Referencing Menu      ***

           rtcROR83      ( rtcCOR83 + rtcFOR83 + rtcTOR83 )

        Select the Facilities File to be referenced by rtcROR83

                                  *  rtcFOR83
                                  >  rtcFGL83
                                  >
                                  >
                                  >
                                  >
                                  >
                                  >

  Options:

  <spacebar>  - address next file          <EDIT>  - reference this file

  <backspace> - address previous file


   <CTNUE>  - return editing options menu
```

*The cursor (▶) indicates the Facilities File being addressed.

R.F.1 To ADDRESS the Facilities File to be referenced, depress:

)RETURN(or 'backspace' until the cursor (▶) is opposite the Facilities File to be addressed.

R.F.2 To assign the addressed Facilities File for referencing, depress:

<EDIT>

The addressed Facilities File will be assigned as the referenced Facilities File. The display will be updated to reflect this change, and the Facilities File for Referencing Menu will be replaced by the Restrictions File Editing Options Menu.

R.F.3 Return to R.0, page 61, to select another Restrictions File Editor Option.

R.T To assign a different Time Format File for referencing, depress:

'T'

The following Time Format Files for Referencing Menu will be displayed.*

```
                *** Restrictions File Referencing Menu      ***

                 rtcROR83      [ rtcCOR83 + rtcFOR83 + rtcTOR83 ]

              Select the Time Format File to be referenced by rtcROR83

                                        *  rtcTOR83
                                        >  rtcTGL83
                                        >  rtcTSTAG
                                        >
                                        >
                                        >
                                        >
                                        >

 Options:

 <spacebar>  - address next file          <EDIT>  - reference this file

 <backspace> - address previous file


  <CTNUE>  - return editing options menu
```

*The cursor (▶) indicates the Time Format File being addressed.

R.T.1 To ADDRESS a particular Time Format File, depress:

)RETURN(or 'backspace' until the cursor (▶) is opposite the Time Format File to be addressed.

R.T.2 To assign the addressed Time Format File for referencing, depress:

<EDIT>

The addressed Time Format File will be assigned as the referenced Time Format File. The display will be updated to reflect this change, and the Time Format File Menu will be replaced by the Restrictions File Editing Options Menu.

R.T.3 Return to R.0, page 61, to select another Restrictions File Editor Option.

R.1 To DEFINE the Restrictions Elements, depress:

'1'

The Restrictions File Editing Options Menu will be replaced by the following display:*

```
  TE/ Name in context of    PD!                                          PD
 U.T#   Training Element      ! U.T# Curriculum Outline Unit/Topic Name  MLTPL
-----------------------------+-------------------------------------------------
*    001    <occ. 01 >       !*1.1  Uniform Code of Military Justice        C
 1.1 UCMJ                  2 ! 1.2  Code of Conduct & the Geneva Convention
     002    <occ. 01 >       ! 1.3  Chain of Command & Leadership Concepts
 1.2 Code of Conduct       1 ! 1.4  Security Information
     003    <occ. 01 >       ! 1.5  Discharges
 1.3 Chain of Command      1 ! 1.6  Driver Training                       C
     004    <occ. 01 >       ! 1.7  Law of Armed Conflict
 1.4 Security Information  1 ! 2.1  Naval Customs and Courtesies(T)       C
     005    <occ. 01 >       ! 2.2  Ship and Aircraft Familiarization      C
 1.5 Discharges            1 ! 2.3  Mission of the Navy                   C
     006    <occ. 01 >       ! 2.4  Navy History and Traditions           C
 1.6 Driver Training       3 ! 2.5  The Soviet Navy Challenge
     007    <occ. 01 >       ! 2.6  Ship Organizational Structure
-----------------------------+-------------------------------------------------
 Option List:     CTNUE <return to menu>   Edit  <edit TE item name>
   Cursor Control                          SF'2  <change C to M (this session)>
  S <switch sides>  Spacebar <cursor down> SF'3  <edit occurrence number>
    'Right side'    Backspace <cursor up>  SF'4  <Temporarily remove TE>
 SF'11 <next page> SF'14 <previous page>   SF'5  <relocate TE before pointer>
 SF'12 <next unit> SF'13 <previous unit>   SF'7  <add TE item after pointer>
   SF'6 <delete TE item> SF'9 <delete TE>  SF'10 <add TE after pointer>
```

*If a new Restrictions File is being created, the left side of the display will be blank, since no Restrictions Elements will have been defined.

NOTE: The purpose of this option is to define each Restrictions Element in terms of the Unit Topic/Functions which it must include, the number of periods of each Topic/Function required, and the number of Training Events that must be scheduled which conform to this Restrictions Element's constraints. It also allows the user to edit the names associated with the Topic/Functions in terms of the context of the Restrictions Element to which they are assigned.

Detailed instructions on each Restrictions Element Editing Command are contained in the subsequent pages as follows:

To Address a particular Restrictions Element or Topic/Function in a Restrictions Element in the Restrictions Element Window	see R.1.1, page 66
To Address a particular Unit Topic/Function in the Curriculum Window	see R.1.2, page 67
To Add a Restrictions Element	see R.1.3, page 67
To Delete a Restrictions Element	see R.1.4, page 67
To Relocate a Restrictions Element	see R.1.5, page 68
To Edit the number of occurrences	see R.1.6, page 68
To Add a Topic/Function to a Restrictions Element	see R.1.7, page 69
To Delete a Topic/Function from a Restrictions Element	see R.1.8, page 69
To Edit the name of a Topic/Function in a Restrictions Element	see R.1.9, page 70
To temporarily change the M/C designator from "C" to "M" (to permit assigning one period of a topic/function at a time)	see R.1.10, page 70
To Exit the Restrictions Element Definitions Editor	see R.1.11, page 71

R.1.1 To ADDRESS a particular Restrictions Element, or Topic/Function within a Restrictions Element in the Restrictions Element Window, depress:

'S' until "Left Side" is displayed in the Options Window.

R.1.1.1 Depress:

<'11>, <'12>, <'13>, <'14>, 'backspace',

and/or 'spacebar'

until the Restrictions Element and Topic/Function to be addressed are displayed in the Restrictions Element Window with the Restrictions Element Cursor (▶) opposite it.

R.1.1.2 Return to R.1, page 65, to select another option.

R.1.2 To ADDRESS a particular Unit Topic/Function in the Curriculum Window, depress:

'S' until "Right Side" is displayed in the Options Window.

R.1.2.1 Depress:

<'11>, <'12>, <'13>, <'14>, 'backspace',

and/or 'spacebar'

until the Unit Topic/Function to be addressed is displayed in the Curriculum Window with the Curriculum Cursor (▶) opposite it.

R.1.2.2 Return to R.1, page 65, to select another option.

R.1.3 To ADD a Restrictions Element,

Address the Restrictions Element which the new Restrictions Element is to follow in the Restrictions Element Window (see R.1.1, page 66).

R.1.3.1 Address the first Topic/Function required by the new Restrictions Element (see R.1.2, page 67).

R.1.3.2 Depress:

< INSERT >

The new Restrictions Element will be inserted following the addressed Restrictions Element with the addressed Topic/Function required. (If the Topic/Function is designated by a "C", all of its periods will be assigned to the new Restrictions Element, otherwise, one period will be assigned.) All subsequent Restrictions Elements will be renumbered, and the Restrictions Element Window and Curriculum Window displays will be refreshed to reflect the new status.

R.1.3.3 Return to R.1, page 65, to select another option.

R.1.4 To Delete a Restrictions Element, Address the Restrictions Element to be deleted (see R.1.1, page 66).

R.1.4.1 Depress:

< DELETE >

The addressed Restrictions Element will be deleted. The periods assigned to each of its Topic/Functions will be returned to the corresponding Topic/Function in the Curriculum File and all subsequent Restrictions Elements will be renumbered, then the Restrictions Element Window and Curriculum Window displays will be refreshed to reflect the new status.

R.1.4.2 Return to R.1, page 65, to select another option.

R.1.5 To Relocate a Restrictions Element address the Restrictions Element that is to be relocated. (See R.1.1, page 66.)

R.1.5.1 Depress:

< '4 >

The addressed Restrictions Element will be removed from the Restrictions Element display, all subsequent Restrictions Elements will be renumbered, and the Restrictions Element Window will be refreshed to reflect the new status.

R.1.5.2 Address the Restrictions Element which is to follow the Restrictions Element being relocated. (See R.1.1, page 66.)

R.1.5.3 Depress:

< '5 >

The Restrictions Element being relocated will be inserted before the currently addressed Restrictions Element, all subsequent Restrictions Elements will be renumbered, and the Restrictions Element Window will be refreshed to reflect the new status.

R.1.5.4 Return to R.1, page 65, to select another option.

R.1.6 To Edit the number of occurrences (i.e., the number of Training Events that are to adhere to this Restrictions Element's scheduling constraints), address the Restrictions Element whose occurrence value is to be changed.

R.1.6.1 Depress:

< '3 >

The occurrence value will begin to flash, prompting the entering of the new value.

R.1.6.2 Enter a 2-digit number for the new value:

'##'

The new value "##" will be echoed in the Restrictions Element Window display as it is entered. When the new value has been entered, the flashing will cease, indicating the editing has been completed, and the Curriculum Window will be refreshed (if required) to reflect the new status (as regards periods assigned).

R.1.6.3 Return to R.1, page 65, to select another option.

R.1.7 To Add a Topic/Function to a Restrictions Element, Address the Topic/Function that is to be added in the Curriculum Window. (See R.1.2, page 67.)

R.1.7.1 Address the Restrictions Element and the Topic/Function which it is to follow in that Restrictions Element in the Restrictions Element Window (See R.1.1, page 66.)

R.1.7.2 Depress:

<'7>

The Topic/Function addressed in the Curriculum Window will be added to the list of required Topic/Functions for the Restrictions Element addressed following the addressed Topic/Function in the Restrictions Element Window. If the added Topic/Function was designated by a "C" in the Curriculum Window all of its periods will be assigned with it to the addressed Restrictions Element, otherwise one period will be assigned with it to the addressed Restrictions Element. The Restrictions Element Window and Curriculum Window displays will then be refreshed to reflect the new status.

R.1.7.3 If additional periods of the same Topic/Function are to be assigned to the addressed Restrictions Element, depress:

<'7> until the required number of periods have been assigned.

Each time the <'7> key is depressed an additional period of the addressed Topic/Function in the Curriculum Window will be assigned to the addressed Restrictions Element, and the Restrictions Element Window and Curriculum Window displays will be refreshed to reflect the new status.

R.1.7.4 Return to R.1, page 65, to select another option.

R.1.8 To Delete a Topic/Function from the list of required Topic/Functions for a Restrictions Element, address the Topic/Function to be deleted in the Restrictions Element in the Restrictions Element Window display (See R.1.1, page 66.)

R.1.8.1 Depress:

<'6>

The addressed Topic/Function in the Restrictions Element Window will be removed and its periods reassigned to the corresponding Topic/Function in the Curriculum Window, then the Restrictions Element Window and Curriculum Window display will be refreshed to reflect the new status.

R.1.8.2 Return to R.1, page 65, to select another option.

R.1.9 To Edit the name of a Topic/Function in a Restrictions Element's list of Topic/Functions to reflect its use in the context of that Restrictions Element, Address the Topic/Function in the Restrictions Element Window whose name is to be changed. (See R.1.2, page 67.)

R.1.9.1 Depress:

<EDIT>

The first character of the Topic/Function addressed in the Restrictions Element Window will begin to flash, prompting the entering of the new name.

R.1.9.2 Enter the new Topic/Function name to be used in the context of the addressed Restrictions Element:

'new name'

The "new name" will be echoed one character at a time as it is entered.

R.1.9.3 When the last character has been entered, depress:

)RETURN(

The character flashing will cease, indicating that the name editing is complete.

R.1.9.4 Return to R.1, page 65, to select another option.

R.1.10 To temporarily change the Topic/Function's designator from a "C" to an "M" to permit assigning it to more than one Restrictions Element, address the Topic/Function in the Curriculum Window whose designator is to be changed.

R.1.10.1 Depress:

<'2>

The designator for the Topic/Function addressed in the Curriculum Window will be changed to a "C". (Note: This change will adhere to the current editing of the Restrictions File only, since the Curriculum File containing the M/C data must be edited using the Curriculum File Editor.)

R.1.10.2 Return to R.1, page 65, to select another option.

R.1.11 To EXIT the Restrictions Element Definitions Editor, depress:

)CTNUE(

The Restrictions File Editing Options Menu will be returned.

R.1.11.1 Return to R.0, page 61, to select another option.

R.2 To EDIT the Restrictions Element Training Area Assignments, depress:

'2'

The Restrictions File Editing Options Menu will be replaced by the following display:*

```
          *** Training Area Assignment Editor ***  Movement-Constrained Areas
                                                     A - GALLEY
  TE/ Name in context of      !                      B - TRAINING BUILDING
 U.T#   Training Element      !   Assignment Area    C - ADMIN BLDG--252
--------------------------+----------------------+  D - BLUE JACKET
*    023                   ! TRAINING BUILDING    !  E - FITNESS TRAIL
 2.17 Rating Orientation    !                      !  F - FIELD HOUSE
     024                    ! TRAINING BUILDING    !  G - POOL
 2.18 Enlisted Service Rec  !                      !  H - SOUTH GRINDER
     025                    ! RTC                  !  I - GRINDER
 2.19 Detachment &Transfer  !                      !  J - RIF
     026                    ! BARRACKS             !  K - RIF PSD
 2.20 Gp/Ind Progress Eval  !                      !  L - FIRE F/DAMAGE C B200
     027                    ! CHAPEL               !  M - MEDICAL BLDG--246--
 2.21 Chaplin Human Values  !                      !  N - ARMORY
     028                    ! TRAINING BUILDING    !  O - BARBER SHOP-C.CTR
 2.22 Sound Powered Phones  !                      !  P - PARADE FIELD
 4.2  Navy Watchstanding    !                      !  Q - RIF DENTAL
--------------------------+----------------------+  R - BARRACKS
 Option List:              SF'5  <other areas>        S - DENTAL BLDG--246
  Spacebar <cursor down>   SF'11 <next page>          T - RIF MEDICAL
  Backspace <cursor up>    SF'14 <previous page>
 <Touch corresponding letter key to assign Tra. Area>  U-Z - Blank
  CTNUE <return to menu>
```

*If a new Restrictions File is being created, the assigned area column will be blank. The display represents typical assignments for the Restrictions Element File.

R.2.0 To Address the other set of training areas see R.2.1, page 72

To Address a particular Restrictions Element see R.2.2, page 72

To Assign a Training Area to a Restrictions Element see R.2.3, page 73

To EXIT the Training Area Assignment Editor see R.2.4, page 73

R.2.1 To Address the other set of training areas, depress:

<'5>

until the desired set of training areas is displayed in the right hand column. If movement constrained areas were being displayed they will be replaced by the nonmovement constrained areas. If nonmovement constrained areas were being displayed they will be replaced by the movement constrained areas.

R.2.2 To Address a particular Restrictions Element, depress:

<'11> and/or 'spacebar' and/or 'backspace' and/or<'14>

until the Restrictions Element to be addressed is displayed with the cursor (▶) opposite it.

<'11> causes the next page of Restrictions Elements to be displayed

<'14> causes the previous page of Restrictions Elements to be displayed

'spacebar' causes the next Restrictions Element in the display to be addressed

'backspace' causes the previous Restrictions Element in the display to be addressed.

R.2.2.1 Return to R.2, page 71, to select another Training Area Assignment Editor option.

R.2.3 To Assign a Training Area to a Restrictions Element, Address the Restrictions Element to which the Training Area is to be assigned. (See R.2.1, page 72.)

R.2.3.1 Address the set of training areas (Movement-Constrained Areas or Nonmovement-Constrained Areas) containing the training area to be assigned. (See R.2.1, page 72.)

R.2.3.2 Depress:

'X'

where 'X' is the letter corresponding to the Training Area to be assigned. The Training Area name corresponding to the letter depressed will be assigned to the addressed Restrictions Element and added as the "Assigned Area" in the display.

R.2.4 To exit the Training Areas Assignment Editor, depress:

)CTNUE(

The Restrictions File Editing Options Menu will be returned.

R.3 To Edit the Restrictions Element Window constraints, depress:

'3'

The Restrictions File Editing Options Menu will be replaced by the following display:*

```
                        ***  Window  File Editor ***              DIS S: 0

  TE/  Name in context of     !                    Day Window                    !
 U.T#     Training Element     !-12345-12345-12345-12345-12345-12345-12345-12345-!
------------------------------+-----------------------------------------------+
*    001                      ! 99900 00000 00000 00000 00000 00000 00000 00000 !
 1.1   UCMJ                   !                                                 !
      002                     ! 99999 99990 00000 00000 00000 00000 00000 00000 !
 1.2   Code of Conduct        !                                                 !
      003                     ! 00000 00009 99999 99990 00000 00000 00000 00000 !
 1.3   Chain of Command       !                                                 !
      004                     ! 00000 00009 99999 99990 00000 00000 00000 00000 !
 1.4   Security Information   !                                                 !
      005                     ! 99999 99990 00000 00000 00000 00000 00000 00000 !
 1.5   Discharges             !                                                 !
      006                     ! 99999 99999 99999 99999 99999 99999 99999 99999 !
 1.6   Driver Training        !                                                 !
      007                     ! 99999 99999 99999 99999 99999 99999 99999 99999 !
------------------------------+-----------------------------------------------+
Option List:
  Spacebar <cursor down>      SF'11 <next page>          Erase <Abort changes>
  Backspace <cursor up>       SF'14 <previous page>      Ctnue <Save changes>
  Edit <edit window>          F# <fill window with #>
  Recall <prev. position>     SF'4 <edit other window>
```

*If a new Restrictions File is being created the values in the "Day Preferences" portion of the display will all be blank.

To Address the other set of Day/Period Preferences — see R.3.1, page 75

To Address a particular Restrictions Element — see R.3.2, page 75

To Assign Day or Period preferences to a Restrictions Element — see R.3.3, page 76

To Exit the Window Editor — see R.3.4, page 77

R.3.1 To address the alternate set of preferences (Day versus Period), depress:

<'5>

If the Day Preferences are being displayed in the Preference Window (right side) of the display, they will be replaced with the Period Preferences when <'5> is depressed:*

```
                          *** Window File Editor ***                 Dis S: 0

  TE/ Name in context of    |  Period Window  |
 U.T# Training Element      | 123456789012345 |
------------------------------+-----------------+
*    001                     | 000999999999990 |
 1.1   UCMJ                  |                 |
      002                    | 000999999999990 |
 1.2   Code of Conduct       |                 |
      003                    | 000999999999990 |
 1.3   Chain of Command      |                 |
      004                    | 000999999999990 |
 1.4   Security Information  |                 |
      005                    | 000999999999990 |
 1.5   Discharges            |                 |
      006                    | 000999999999990 |
 1.6   Driver Training       |                 |
      007                    | 000999999999990 |
------------------------------+-----------------+
 Option List:
   Spacebar <cursor down>     SF'11 <next page>          Erase <Abort changes>
   Backspace <cursor up>      SF'14 <previous page>      Ctnue <Save changes>
   Edit <edit window>         F# <Fill window with #>
   Recall <prev. position>    SF'4 <edit other window>
```

*If a new Restrictions File is being created, the values in the Period Preferences will all be blank.

If the Period Preferences are being displayed in the Preference Window (right side) of the display, they will be replaced with the Day Preferences when <'5> is depressed. (See sample display in section R.3, page 73.)

R.3.1.1 Return to R.3, page 73, to select another option.

R.3.2 To Address a particular Restrictions Element, depress:

<'11> and/or 'spacebar' and/or 'backspace' and/or <'14>

until the Restrictions Element to be addressed is displayed with the cursor (▶) opposite it.

<'11> causes the next page of Restrictions Elements to be displayed

<'14> causes the previous page of Restrictions Elements to be displayed

'spacebar' causes the next Restrictions Element in the display to be addressed

'backspace' causes the previous Restrictions Element in the display to be addressed.

R.3.2.1 Return to R.3, page 73, to select another option.

R.3.3 To Assign Day or Period Preferences to a Restrictions Element, Address the set of preferences (see R.3.1, page 75) and the Restrictions Element (see R.3.2, page 75) to which the preference value is to be assigned.

R.3.3.1 Depress:

<EDIT>

The character in the position for the first Day/Period preference value will begin flashing.

R.3.3.2 Depress:

<'11> and/or <'12> and/or <'13> and/or <'14> and/or)RETURN(

and/or <RECALL>

until the preference value to be changed is flashing.

<'11> causes the preference value being addressed to move five positions to the right if the Period Preference Window is being depressed, and to the last position of the addressed week if the Day Preference Window is being addressed.

<'12> causes the preference value being addressed to be moved one position to the right (until the last period position or last day position of the week is addressed).

<'13> causes the preference value being addressed to be moved one position to the left (until the first period or first day position of the week is addressed).

<'14> causes the preference value being addressed to move five positions to the left if the Period Preference Window is being addressed, and to the first position of the addressed week if the Day Preference Window is being addressed.

)RETURN(causes the preference value of the first day of the next week to be addressed, if the Day Preference Window is being addressed, until the last week is addressed or the edit mode to be left and the next Restrictions Element to be addressed if the Period Preference Window is being addressed or the last week is being addressed.

< RECALL > causes the preference value of the previous day or period of the Restrictions Element to be addressed.

R.3.3.3 Enter the new preference value (0-9) for the addressed Restrictions Element's day or period. A preference value of "9" indicates that the desirability of scheduling that Restrictions Element on that day or period is high. A preference value of "1" indicates that the desirability of scheduling that Restrictions Element on that day or period, while permissible, is undesirable. A preference value of "0" (or a blank) indicates that scheduling of that Restrictions Element is not permitted in that day or period.

R.3.3.4 Continue editing Restrictions Element day and period preference values until all required changes have been made.

R.3.4 To exit the window file editor and return to the Restrictions File Editing Options Menu, depress:

)CTNUE(

R.3.4.1 Return to R.0, page 61, to select another option.

R.4 To Edit the smoothing type assignments, depress:

'4'

The Restrictions File Editing Options Menu will be replaced by the following display:*

```
                    *** Smoothing Type Editor ***          DIS S: 0

 TE/ Name in context of   PD! Smooth !
U.Te   Training Element     ! Type  !                Smoothing Types
-------------------------------+-------
    033                    !  D    !      A - Inspection
3.1 Military Drill       1  !       !      B - Academic Testing
    034                    !       !      C - Medical
3.2 Navy Form&Ceremonies 3  !       !      D - Drill
    035                    !       !      E - Physical Training
3.3 Officer and Enlisted 2  !       !      other keys - Blank
3.4 Rank and Rate Recog. 2  !       !
    036                    !       !
3.5 Salute & Greeting    1  !       !
    037                    !       !
3.6 Unif-Wear,Stow,&Care 1  !       !
*   038                    !  E    !
3.7 Physical Condit.     1  !       !
-------------------------------+-------
Option List:
 Spacebar <cursor down>     SF'11 <next page>
 Backspace <cursor up>      SF'14 <previous page>
<Touch corresponding letter key to assign Smoothing Type.>
                           Ctnue <return to menu>
```

*If a new Restrictions File is being created, the Assigned Smoothing Type column will be all blanks. The display represents typical assignments for a Restrictions File. (See tables 1 and 2 on pages 7 and 13, respectively, for a description of "Smoothing.")

To Address a particular Restrictions Element see R.4.1, page 78

To Assign a Smoothing Type to a Restrictions Element see R.4.2, page 78

To Exit the Smoothing Type Editor see R.4.3, page 78

R.4.1 To Address a particular Restrictions Element, depress:

<'11> and/or 'spacebar' and/or 'backspace' and/or <'14>

until the Restrictions Element to be addressed is displayed with the cursor (▶) opposite it.

<'11> causes the next page of Restrictions Elements to be displayed.

<'14> causes the previous page of Restrictions Elements to be displayed.

'spacebar' causes the next Restrictions Element to be addressed.

'backspace' causes the previous Restrictions Element to be addressed.

R.4.1.1 Return to R.4, page 77, to select another option.

R.4.2 To Assign a Smoothing Type to a particular Restrictions Element, Address the Restrictions Element to which the assignment is to be made (see R.4.1, page 78.)

R.4.2.1 Depress:

'X'

(Where 'X' is the initial letter of the Smoothing Type)

The designated Smoothing Type will be assigned to the addressed Restrictions Element and displayed in the Smoothing Type column opposite it.

R.4.2.2 Return to R.4, page 77, to select another option.

R.4.3 To EXIT the Smoothing Type Editor, depress:

)CTNUE(

R.4.3.1 Return to R.0, page 61, to select another option.

R.5 To Edit the assigned separation between Restrictions Elements, depress:

'5'

The Restrictions File Editing Options Menu will be replaced by the following display:*

```
                    *** Separations Editor ***                DiS S: 0

 TE/ Name in context of      ! sepr.  !     !     !  TE/   Separation pairs
 U.T# Training Element       !min.!max.! TE  !     ! U.T#     TE from  TE
+---------------------------+----+----+-----+     +-------------------------+
     072                    !    !    !     !     !     081
 6.8  Personal Data Collec  !    !    !     !     ! 7.5  3rd Innoculations
     073                    !    !    !     !     !     074
 6.9  Barracks Orientaion   !    !    !     !     ! 7.5  2nd Innoculations
*    074                    ! 7  ! 40 ! 81  !     ! 7.1  Medical Examinations
 7.5  2nd Innoculations     !    !    !     !     !
 7.1  Medical Examinations  !    !    !     !     !
     075                    !    !    !     !     !
 7.1  Medical Examinations  !    !    !     !     !
     076                    !    !    !     !     !
 7.2  Dental Examinations.  !    !    !     !     !
     077                    !    !    !     !     !
 7.4  Dental Treatment Ava  !    !    !     !     !
+---------------------------+----+----+-----+     +-------------------------+
 Option List:
  Spacebar <cursor down>                            SF'1 <select TE>
  Backspace <cursor up>   Ctnue <return to menu>    SF'2 <sepr. TE from above TE>
  SF'14 <previous page>                             SF'9 <delete sepr. pair>
  SF'11 <next page>       SF'5 <next sepr. pair>    Edit <edit sepr. values>
```

*If a new Restrictions File is being created, the assigned separations will be all blanks. The display represents a typical assigned separation.

To Address a particular Restrictions Element see R.5.1, page 80

To Assign a separation to a Restrictions Element see R.5.2, page 80

To Edit the minimum/maximum separation values of a separation see R.5.3, page 81

To Delete a Separation Pair see R.5.4, page 82

To Display the assigned pairs of Restrictions Elements to be separated see R.5.5, page 82

To Exit the Separations Editor see R.5.6, page 82

R.5.1 To address a particular Restrictions Element, depress:

<'11> and/or 'spacebar' and/or 'backspace' and/or <'14>

until the Restrictions Element to be addressed is displayed with the cursor (▶) opposite it.

<'11> causes the next page of Restrictions Elements to be displayed.

<'14> causes the previous page of Restrictions Elements to be displayed.

'spacebar' causes the next Restrictions Element to be addressed.

'backspace' causes the previous Restrictions Element to be addressed.

R.5.1.1 Return to R.5, page 79, to select another option.

R.5.2 To assign a Separation between a pair of Restrictions Elements, Address the first of the pair of Restrictions Elements to be separated. (See R.5.1, page 80.)

R.5.2.1 Depress:

<'1>

The addressed Restrictions Element will be displayed in the Separation Pairs Window of the Display.

R.5.2.2 Address the second Restrictions Element of the pair that is to be separated. (See R.5.1, page 80.)

R.5.2.3 Depress:

<'2>

The second Restrictions Element will be displayed beneath the first in the Separation Pairs Window of the display; and the first character of a 2-digit number (00) will begin flashing in the minimum separation column.

R.5.2.4 Enter:

'##' (where "##" is a 2-digit number representing the minimum number of days of separation)

The digits will be displayed as they are entered, and when complete the first character of a 2-digit number (00) will begin flashing in the maximum separation column.

R.5.2.5 Enter:

'##' (where "##" is a 2-digit number representing the maximum number of days of separation)

The digits will be displayed as they are entered and when complete the display will be refreshed to show the minimum and maximum separations and the Restrictions Element with which that separation is to be maintained for all Restrictions Elements being displayed.

R.5.2.6 Return to R.5, page 79, to select another option.

R.5.3 To Edit the minimum and/or maximum separation values of an assigned separation pair, Address one of the Restrictions Elements of the pair. (See R.5.1, page 80.)

R.5.3.1 Depress:

< EDIT >

The first character of the minimum separation value will begin flashing, prompting the editing of its value.

R.5.3.2 If the minimum separation value is to be changed, enter the new value:

'##'

The new value will be displayed as it is entered.

R.5.3.3 If the minimum separation value is not to be changed, depress:

)RETURN(

After either of the above entries, the first digit of the maximum separation value will begin flashing, prompting the editing of its value.

R.5.3.4 If the maximum separation value is to be changed, enter the new value

'##'

The new value will be displayed as it is entered.

R.5.3.5 If the maximum separation value is not to be changed, depress:

)RETURN(

After either of the above entries, the display will be refreshed to show the edited minimum and maximum separation values.

R.5.3.6 Return to R.5, page 79, to select another option.

R.5.4 To Delete the assigned Separation of a pair of Restrictions Elements, Address one of the pair of Restrictions Elements that is to have the separation constraint removed. (See R.5.1, page 80.)

R.5.4.1 Depress:

< DELETE >

The assigned separation between the addressed Restrictions Element and the Restrictions Element with which it was paired will be removed and the display refreshed to reflect this change.

R.5.4.2 Return to R.5, page 79, to select another option.

R.5.5 To Display the next pairs of Restrictions Elements that have been assigned minimum and maximum separation, depress:

< '5 >

Each time < '5 > is depressed the next pair of Restrictions Elements which have been designated to be separated will be displayed in the Separation Pairs Window (right-side) of the display.

R.5.5.1 Return to R.5, page 79, to select another option.

R.5.6 To exit the Separations File Editor and return to the Restrictions File Editing Options Menu, depress:

)CTNUE(

R.6 To Edit the Blocking of Restrictions Elements, depress:

'6'

The Restrictions File Editing Options Menu will be replaced by the following display:*

```
                          *** Blocking Editor ***                    Dis S: 0

  TE/  Name in context of  !                          !  TE/      TE 057's
 U.T#   Training Element   ! Block association        ! U.T#     Blocking set
+--------------------------+---+---+---+---+---+-----+-------------------------+
     054                   !   !   !   !   !   !     !    026                  !
 5.1   Academic Test # 2   !                          !  2.20 Gp/Ind Progress Eval
     055                   !   !   !   !   !   !     !                         !
 5.1   Academic Test # 3   !                          !                         !
     056                   !   !   !   !   !   !     !                         !
 5.1   RFAT/FPE            !                          !                         !
     057                   !026!   !   !   !   !     !                         !
 5.2   Div. Personnel Insp. !                          !                         !
     058                   !026!   !   !   !   !     !                         !
 5.2   MID Personnel Insp.  !                          !                         !
     059                   !037!026!   !   !   !     !                         !
 5.3   Locker Inspection    !                          !                         !
*    060                   !037!026!   !   !   !     !                         !
+--------------------------+---+---+---+---+---+-----+-------------------------+
 Option List:
  Spacebar <cursor down>
  Backspace <cursor up>    Ctnue <return to menu>  SF'1 <block TE ### with..>
  SF'14 <previous page>                            SF'2 <TE's entered here>
  SF'11 <next page>        SF'5 <next block>       SF'9 <delete block>
```

*If a new Restrictions File is being created, the Block association columns and Blocking Set Window will be blank. This display represents typical blocking assignments. (See tables 1 and 2, pages 7 and 13, respectively, for a description of "Blocking.")

To Address a particular Restrictions Element — see R.6.1, page 84

To Assign the Restrictions Elements to be blocked with a particular Restrictions Element — see R.6.2, page 84

To Delete the set of Restrictions Elements blocked with a particular Restrictions Element — see R.6.3, page 85

To Display the assigned Blocks of Restrictions — see R.6.4, page 85

To Exit the Blocking Editor — see R.6.5, page 85

R.6.1 To Address a particular Restrictions Element, depress:

<'11> and/or 'spacebar' and/or 'backspace' and/or <'14>

until the Restrictions Element to be addressed is displayed with the cursor (▶) opposite it.

<'11> causes the next page of Restrictions Elements to be displayed.

<'14> causes the previous page of Restrictions Elements to be displayed.

'spacebar' causes the next Restrictions Element to be addressed.

'backspace' causes the previous Restrictions Element to be addressed.

R.6.1.1 Return to R.6, page 83, to select another option.

R.6.2 To Assign the Restrictions Elements that are to be blocked with a particular Restrictions Element, Address the Restrictions Element with which assignment of blocked Restrictions Elements is to be made. (See R.6.1, page 84.)

R.6.2.1 Depress:

<'1>

The addressed Restrictions Element's number will be displayed in the Blocking Set Window (right-side) of the display.

R.6.2.2 Address a Restrictions Element which is to be blocked with the first Restrictions Element. (See R.6.1, page 84.)

R.6.2.3 Depress:

<'2>

The addressed Restrictions Element will be added to the list of Restrictions Elements to be blocked with the Restrictions Element which was addressed first, and the display will be refreshed to show the set of blocked Restrictions Elements.

R.6.2.4 Repeat steps R.6.2.2 through R.6.2.3, addressing additional Restrictions Elements to be blocked with the first Restrictions Element until it is complete.

R.6.2.5 Return to R.6, page 83, to select another option.

R.6.3 To Delete the set of Restrictions Elements that are to be blocked with a particular Restrictions Element, Address the Restrictions Element to which the set belongs. (See R.6.1, page 84.)

R.6.3.1 Depress:

< DELETE >

The set of Restrictions Elements that were to be blocked with the addressed Restrictions Element will be deleted, and the display will be refreshed to reflect this change.

R.6.3.2 Return to R.6, page 83, to select another option.

R.6.4 To display the next set of Restrictions Elements that have been assigned for blocking with a particular Restrictions Element, depress:

< '5 >

Each time < '5 > is depressed, the next set of Restrictions Elements which has been designated for blocking with a particular Restrictions Element will be displayed in the Blocking Set Window (right-side) of the display with that particular Restrictions Element's number at the top.

R.6.4.1 Return to R.6, page 83, to select another option.

R.6.5 To Exit the Blocking Editor, depress:

)CTNUE(

R.6.5.1 Return to R.0, page 61, to select another option.

R.7 To Edit the Restrictions Element Precedences, depress:

'7'

The Restrictions File Editing Options Menu will be replaced by the following display:

```
*** Precedence Editor ***                    DIS S: 0


Options!   Description
       !
     1 ! < Day Prec. (before) >
     2 ! < Day Prec. (after) >
     3 ! < Period Prec. (before) >
     4 ! < Period Prec. (after) >
       !
<CTNUE> !  return to menu


                    Key Option:
```

R.7.s Depress:

'#'

where "#" is the number corresponding to the type of precedence to be edited.

Note: '1' is for assignment of Restrictions Elements which must come after a designated Restrictions Element.

'2' is for assignment of Restrictions Elements which must come before a designated Restrictions Element.

'3' is for assignment of Restrictions Elements which may not appear in a later period of the same day as a designated Restrictions Element.

'4' is for assignment of Restrictions Elements which may not come in an earlier period of the same day as the designated Restrictions Element.

The corresponding Precedence Assignment Editor will be displayed.*

```
< Day Prec. (before) >      *** Precedence Editor ***              DIS S: 0

 TE/ Name in context of   |                    | TE/      TE 052's
U.T# Training Element     | Prec. association  | U.T#     Precedence set
--------------------------+---+---+---+---+---+-----------------------------
*   049                   |   |   |   |   |   |    018
4.10 Intro to Small Arms  |                    | 2.11 Deck Seamanship
    050                   |   |   |   |   |   | 2.12 Boats & Lifevests
4.19 Uniform Stenciling f |                    |    028
    051                   |   |   |   |   |   | 2.22 Sound Powered Phones
4.20 Financial Respons.   |                    | 4.2  Navy Watchstanding
    052                   |018|028|   |   |   |
4.21 General Drills       |                    |
    053                   |086|   |   |   |   |
5.1  Academic Test # 1    |                    |
    054                   |086|   |   |   |   |
5.1  Academic Test # 2    |                    |
    055                   |086|   |   |   |   |
--------------------------+---+---+---+---+---+-----------------------------
Option List:
 Spacebar <cursor down>
 Backspace <cursor up>   Ctnue <return to menu>  SF'1 <Prec. TE ### ...>
 SF'14 <previous page>                           SF'2 <select TE for Prec.>
 SF'11 <next page>       SF'5 <next block>       SF'9 <delete Prec. block>
```

*The Day Precedence Antecedents Editor is displayed; however, the displays for the Day Precedence Postcedent Editor, Period Precedence Antecedents Editor and Period Precedence Postcedents Editor are all similar.

R.7.0

To Address a particular Restrictions Element — see R.7.1, page 88

To Assign Restrictions Elements to the list of those that are to have the addressed precedence conditions with respect to a particular Restrictions Element — see R.7.2, page 88

To Delete the list of Restrictions Elements that are to have the addressed precedence conditions with respect to a particular Restrictions Element — see R.7.3, page 89

To Display the lists of Restrictions Elements which have been assigned the addressed precedence condition with respect to a particular Restrictions Element — see R.7.4, page 89

To Exit the type precedence editor — see R.7.5, page 89

R.7.1 To Address a particular Restrictions Element, depress:

<'11> and/or 'spacebar' and/or 'backspace' and/or <'14>

until the Restrictions Element to be addressed is displayed with the cursor (▶) opposite it.

<'11> causes the next page of Restrictions Elements to be displayed.

<'14> causes the previous page of Restrictions Elements to be displayed.

'spacebar' causes the next Restrictions Element to be addressed.

'backspace' causes the previous Restrictions Element to be addressed.

R.7.1.1 Return to R.7.0, page 87, to select another option.

R.7.2 To assign the Restrictions Elements that are to have the addressed precedence condition with a particular Restrictions Elements, depress:

<'1>

The addressed Restrictions Element's number will be displayed in the Precedence Set Window (right-side) of the display.

R.7.2.1 Address the Restrictions Element which is to have the addressed precedence condition with respect to the first Restrictions Element.

R.7.2.2 Depress:

<'2>

The currently addressed Restrictions Element will be added to the list of Restrictions Elements to have the addressed precedence condition with the first Restrictions Element and the display will be refreshed to reflect the new constraint.

R.7.2.3 Repeat steps R.7.2.1 and R.7.2.2 addressing additional Restrictions Elements and assigning them to the list of Restrictions Elements to have the addressed precedence condition with respect to the first Restrictions Element until it is complete.

R.7.2.4 Return to R.7.0, page 87, to select another option.

R.7.3 To Delete the list of Restrictions Elements that are assigned to have the addressed precedence condition with respect to a particular Restrictions Element, address the Restrictions Element to which the list belongs. (See R.7.1, page 88.)

R.7.3.1 Depress:

< DELETE >

The list of Restrictions Elements that were to have the addressed precedence conditions with respect to the addressed Restrictions Element will be deleted, and the display will be refreshed to reflect this change.

R.7.3.2 Return to R.7.0, page 87, to select another option.

R.7.4 To display the next set of Restrictions Elements that have been assigned to have the addressed precedence conditions with respect to a particular Restrictions Element, depress:

< '5 >

Each time <'5> is depressed, the next set of Restrictions Elements which have been designated to have the addressed precedence conditions with respect to a particular Restrictions Element will be displayed in the Precedence Set Window (right-side) of the display with that particular Restrictions Element's number at the top.

R.7.4.1 Return to R.7.0, page 87, to select another option.

R.7.5 To Exit the type precedence editor, depress:

)CTNUE(

R.7.5.1 Return to R.0, page 61, to select another option.

R.8 To Exit the Restrictions File Editor, depress:

< END >

R.8.1 Go to X.0, page 105, for Data File Editor Exit Options Menu instructions.

S. SCHEDULE FILE EDITOR (OPTION 5)

The Schedule File Editor is used to create and revise Master Training Schedules (MTSs) by assigning the day and period for each training event for each Restrictions Element in the Restrictions File. The Master Training Schedule must, therefore, reference a Restrictions File (which, in turn, references a Curriculum, a Facilities, and a Time Format File).

The Schedule File Editor interactively performs four functions:

- displays the MTS information
- makes changes to the MTS as directed by input commands
- monitors the status of the MTS and alerts the user of any violations to scheduling constraints contained in the referenced Restrictions File
- stores the new/revised MTS in a Schedule File.

The user input commands are provided through the terminal keyboard, and the MTS information and status are provided through the terminal CRT display. In the following paragraphs, the display of MTS information and status are discussed first, followed by a discussion of the input commands.

DISPLAY

The Schedule File Editor display is divided into two portions, or "windows," one above the other, through which the user may examine the MTS and the MTS status. The upper window is called the Schedule Layout Assignment Matrix (SLAM) window. The SLAM displays the training events and meals (by training event number and meal number) assigned to each day and period of each schedule variation for each day of departure and schedule track (Alpha/Bravo, Blue/Gold, etc.). Although this display is capable of displaying only 15 training days at a time, it may be scrolled forward and backward in time in order to cover the entire training schedule. In addition, it may be switched, as required, through each of the schedule variations for each day of departure and each schedule track, so that the entire MTS may be examined.

The lower window alternatively contains an Events Window to display training event information on each training event and its status as follows:

- Training Event Number
- Training Event Name
- Training Topics/Functions included
- Number of Periods required
- Training Area

- Assigned Day and Periods (if assigned)
- Violations to scheduling constraints (if any).

The Meals Window displays information on each meal and its status as follows:

- Meal Number
- Meal Name (breakfast/lunch/dinner)
- Meal Serving Time and Periods
- Assigned Training Day (if assigned)
- Violations to scheduling constraints (if any).

There are six lines of display in the lower window. Thus, information and the status on six meals may be displayed at one time when in the Meals Window. When the Events Window is displayed, information and status on from one to six training events may be displayed at one time, depending upon the number of training Topic/Functions in each training event. Like the MTS Window, the Events Window and the Meals Window may be scrolled forward and backward to permit examining the status of each training event and each meal.

Each of the above three windows (the MTS Window, the Events Window, and the Meals Window) has a cursor associated with it which is controlled by the user to address a specific day and period, training event, or meal in their respective windows.

In addition to the three windows described above, a fourth temporary window, called the Facilities Window, is available to provide information on training area utilization.

The Facilities Window displays capacity information on the training area utilized by the training event being addressed in the Events Window. This information is provided in terms of the number of additional companies, which may be assigned to that training area in each training period of each training day of the week. Since some schedules (e.g., a mobilization schedule) may use 6 days of the week for training while others use 5, the number of lines in this display window will be five or six depending upon the number of training days in each week. The Facilities Window temporarily replaces the last five or six lines of the MTS Window display and is replaced by these same lines before processing continues. (There is no cursor associated with the Facilities Window.)

Finally, because the large amount of information required to be displayed for scheduling does not leave space for displaying the Schedule File Editor commands (as has been done with the other file editors), provision has been made to display these commands in a second temporary window, the Help Window. The Help Window occupies the same space as the Facilities Window.

INPUT

The Schedule File Editor input commands are divided into five groups:

- MTS Window and Cursor control commands
- Events Window and Cursor control commands
- Meals Window and Cursor control commands
- Facilities Window control commands
- MTS changing commands.

During operation of the Schedule File Editor, the MTS Window and Cursor control commands are used to address a particular day and period in a particular schedule variation of a particular schedule track. The Events or Meals Window and Cursor control commands are used to address a particular training event or meal. If the day and period addressed in the MTS Window contains a training event, depressing the < DELETE > key will remove it from the schedule and update any changes to the status which this deletion may cause. Depressing the < INSERT > key will cause the training event addressed by the cursor in the Events Window or the meal addressed by the cursor in the Meals Window (depending upon which window is currently displayed) to be inserted into the MTS in the day and period addressed by the MTS Window cursor. If there are training events or meals already assigned to any of the periods to be occupied by the training event or meal being inserted they will be removed before the insertion is made. Following the insertion, all changes in status resulting from the insertion and any consequential deletions will be updated.

If the user is concerned at any time with the capacity of the training area required by an addressed training event, depressing the < '2 > key will cause the Facilities Window to be displayed. The Facilities Window indicates, for that training area, the remaining capacity (in companies) for each training day of the week and each period of the day.

S.0 When the Schedule File Editor has been selected (see Section M., "Function Selection," page 25) and the Schedule File to be edited has been chosen (see D., "File Menu Options," page 27), the following Schedule Editing Options Menu will be displayed:*

*** Schedule File Menu ***

> rtcSOR83 (rtcROR83 ((rtcCOR83 + rtcFOR83 + rtcTOR83))

Depress < 'R' > to reference or change referenced RESTRICTIONS file,
< RETURN > to accept designated reference files

---

* If a new schedule is being entered, the Restrictions File Referenced must be entered before attempting to edit the schedule.

To change the Restrictions File referenced by the addressed schedule — see S.r, page 94

To edit the schedule — see S.e, page 95

S.r To change the Restrictions File referenced by the addressed schedule, depress:

'R'

The Schedule Editing Options Menu will be replaced by the Restrictions File Reference Editor:

```
                        Referencing Menu

     Select the Restrictions File to be referenced by rtcSOR83

                              *  rtcROR83
                              >  rtcRGL83
                              >
                              >
                              >
                              >
                              >
                              >

Options:

<spacebar>  - address next file          <EDIT>  - reference this file

<backspace> - address previous file


 <CTNUE>  - return editing options menu
```

S.r.1 To Address the Restrictions File to be referenced, depress:

'spacebar' and/or 'backspace' until the cursor (▶) is opposite the Restrictions File that is to be referenced.

S.r.2 Depress:

)CTNUE(

The addressed Restrictions File will become the referenced Restrictions File and the Schedule Editing Options Menu will be returned.

S.r.3 Go to S.e, page 95.

S.e To edit the addressed schedule,

S.e.1 Depress:

)RETURN(

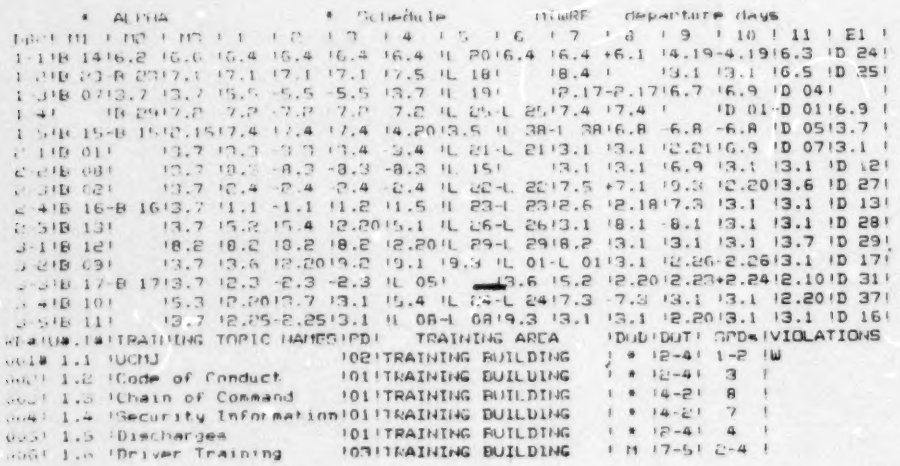
The Schedule Editing Options Menu will be replaced by the Schedule Editing display:*

```
        *  ALPHA                    *  Schedule*          MTWRF   departure days
DAY! M1 ! M2 ! M3 ! 1  ! 2  ! 3  ! 4  ! 5  ! 6  ! 7  ! 8  ! 9  ! 10 ! 11 ! E1 !
1-1!B 14!6.2 !6.6 !6.4 !6.4 !6.4 !6.4 !L 20!6.4 !6.4 +6.1 !4.19-4.19!6.3 !D 24!
1-2!B 23-B 23!7.1 !7.1 !7.1 !7.1 !7.5 !L !8!    !8.4 !    !3.1 !3.1 !6.5 !D 25!
1-3!B 07!3.7 !3.7 !5.5 -5.5 -5.5 !3.7 !L 19!    !2.17-2.17!6.7 !6.9 !D 04!    !
1-4!    !B 29!7.2 -7.2 -7.2 -7.2 -7.2 !L 25-L 25!7.4 !7.4 !    !D 01-D 01!6.9 !
1-5!B 15-B 15!2.15!7.4 !7.4 !7.4 !4.20!3.5 !L 38-L 38!6.8 -6.8 -6.8 !D 05!3.7 !
2-1!B 01!    !3.7 !3.3 -3.3 !3.4 -3.4 !L 21-L 21!3.1 !3.1 !2.21!6.9 !D 07!3.1 !
2-2!B 08!    !3.7 !8.3 -8.3 -8.3 -8.3 !L 15!    !3.1 !3.1 !6.9 !3.1 !3.1 !D 12!
2-3!B 02!    !3.7 !2.4 -2.4 -2.4 -2.4 !L 22-L 22!7.5 +7.1 !9.3 !2.20!3.6 !D 27!
2-4!B 16-B 16!3.7 !1.1 -1.1 !1.2 !1.5 !L 23-L 23!2.6 !2.18!7.3 !3.1 !3.1 !D 13!
2-5!B 13!    !3.7 !5.2 !5.4 !2.20!5.1 !L 26-L 26!3.1 !8.1 -8.1 !3.1 !3.1 !D 28!
3-1!B 12!    !8.2 !8.2 !8.2 !8.2 !2.20!L 29-L 29!8.2 !3.1 !3.1 !3.1 !3.7 !D 29!
3-2!B 09!    !3.7 !3.6 !2.20!9.2 !9.1 !9.3 !L 01-L 01!3.1 !2.26-2.26!3.1 !D 17!
3-3!B 17-B 17!3.7 !2.3 -2.3 -2.3 !L 05!    !3.6 !5.2 !2.20!2.23+2.24!2.10!D 31!
3-4!B 10!    !5.3 !2.20!3.7 !3.1 !5.4 !L 24-L 24!7.3 -7.3 !3.1 !3.1 !2.20!D 37!
3-5!B 11!    !3.7 !2.25-2.25!3.1 !L 08-L 08!9.3 !3.1 !3.1 !2.20!3.1 !3.1 !D 16!
PE*!U*.T*!TRAINING TOPIC NAMES!PD!   TRAINING AREA    !DUD!DUT! SPD*!VIOLATIONS
001* 1.1 !UCMJ                !02!TRAINING BUILDING   ! * !2-4! 1-2 !W
002! 1.2 !Code of Conduct     !01!TRAINING BUILDING   ! * !2-4!  3  !
003! 1.3 !Chain of Command    !01!TRAINING BUILDING   ! * !4-2!  8  !
004! 1.4 !Security Information!01!TRAINING BUILDING   ! * !4-2!  7  !
005! 1.5 !Discharges          !01!TRAINING BUILDING   ! * !2-4!  4  !
006! 1.6 !Driver Training     !03!TRAINING BUILDING   ! M !7-5! 2-4 !
```

---

* If a new schedule is being created, the periods depicted in the Schedule Layout Assignment Matrix (SLAM) window (upper portion of display) will all be blank. The schedule depicted is partially completed.

Explanation of data display format:



The first line of the display contains the name (ALPHA) of the schedule being displayed and the start days (MTWRF), i.e., days of the week on which the portion of the SLAM displayed may start. If the portion of the SLAM being displayed includes the day of the Bulkhead, only the starting day for the subschedule being displayed in the days after the Bulkhead will be displayed. (<'0> and <'1> control the schedule and subschedule being displayed, see pages 98 and 100, respectively.)

The second line of the display contains the names of the periods of the day (M1, M2, M3, 1, 2, 3, ..., 15, E1).

The schedule name, days of the week on which the portion of the SLAM displayed may start, and the names of the periods of the day are all obtained from the Master Training Schedule being edited.

The first column of lines 13 through 17 contains the names of the training days being displayed in the SLAM (1-1 through 3-5). If the portion of the SLAM being displayed includes the day of the Bulkhead, the space between the numbers designating the week and day will contain a lower-case letter (mtwrf) indicating the day of the week on which that day of training occurs in the subschedule starting on the day designated on the first line. (The portion of SLAM displayed is paged whenever the SLAM cursor (▶) is commanded by <'11> or <'14> to a day of training outside of that portion being displayed, see page 100.)

The SLAM Window is displayed in the 3rd through 17th lines of the screen. The boxes contain the Training Topic/Function or meal which has

been assigned to the corresponding period (M1 through E1) and day of training (1-1 through 3-5).

- Training Topic/Functions are designated by their Unit Topic/Function number as it appears in the referenced Curriculum File (and, hence, the Curriculum Outline). (For example, in the SLAM displayed, the Training Function "6.6 Initial Haircut" has been assigned to the M3 period of the 1-1 day.)

- If the Training Topic/Function to be scheduled occupies more than one period, the vertical line separating the periods will be replaced by a horizontal dash (-) to connect the periods. (For example, Training Function "6.4 Working Uniform Issue" occupies periods 1 through 4 of the 1-1 day of training.)

- If a Training Event contains more than one Training Topic/Function, a plus sign (+) will connect the periods. (For example, the Training Functions "6.4 Working Uniform Issue," "6.1 Collect/Stow Unauthorized Gear" and "4.1 Uniform Stenciling" are all part of the Restrictions Element number 004 and periods 7-8 and 8-9 of the 1-1 day of training are connected by a plus (+).)

The Training Event Information Window is displayed in the 18th through 24th lines of the screen.

- The 1st column contains the Restrictions Element number of the Training Event. (Since some Restrictions Elements are designated (by the "occurrences" number) to have more than one Training Event several training events may appear in succession, all with the same Restrictions Element number.)

- The 2nd column contains the unit number and Topic/Function number of the Topic/Functions designated by the Restrictions Element.

- The 3rd column contains the name of the Topic/Function (in the context of the Restrictions Element).

- The 4th column contains the total number of periods required by the Training Event.

- The 5th column contains the name of the Training Area required for the Training Event.

- The 6th column contains an asterisk (*) if the Training Event has been scheduled before the day of the Bulkhead, and a letter (m-f) corresponds to the starting day of the subschedule being displayed or the letter "B" if it has not been scheduled in the subschedule being displayed, but has been scheduled in another subschedule after the day of the Bulkhead.

- The 7th column contains the day of training to which the Training Event has been assigned.

- The 8th column contains the periods to which the Training Event has been scheduled.

- The 9th column contains a code indicating the scheduling constraints, if any, that have been violated. (See table 4, page 99, for interpreting these codes.)

S.c For detailed instructions on how to:

Address a particular schedule in the Master Training Schedule	see S.c.1, page 98
Address a subschedule having a particular starting day in a particular schedule	see S.c.2, page 98
Address a particular day of training and period in the SLAM Window	see S.c.3, page 100
Address a different Training Event/Meal in the Training Event Window	see S.c.4, page 101
Address a Training Event containing a specific training Topic/Function	see S.c.5, page 102
Address a Meal starting in the addressed period	see S.c.6, page 102
Insert a Training Event/Meal into the SLAM	see S.c.7, page 102
Remove a Training Event/Meal from the SLAM	see S.c.8, page 103
Exit the Schedule File Editor	see S.c.9, page 104

S.c.1 To Address a particular schedule in the Master Training Schedule, depress:

< '0 > (until the name of the schedule to be addressed is displayed in the top line of the display)

Each time the < '0 >is depressed, the next schedule in the referenced Time Format File will be addressed, and the SLAM and Training Event Information Window will be refreshed to reflect the status of the newly addressed schedule.

S.c.1.1 Return to S.c, above, to select another option.

S.c.2 To address a subschedule having a particular starting day in the addressed schedule,

TABLE 4. SCHEDULING VIOLATIONS DECODING TABLE

Column	Code	Violations
1	W	The Day Window constraint has been violated.
	w	The Period Window constraint has been violated.
	*	Both the Day and Period Window constraints have been violated.
2	B	The Blocking objective has not been achieved.
3	T	The Type Smoothing constraint has been violated.
4	B	The Day Precedence constraint has been violated by events occurring BEFORE this event.
5	A	The Day Precedence constraint has been violated by events occurring AFTER this event.
6	b	The Period Precedence constraint has been violated by events occurring BEFORE this event.
7	a	The Period Precedence constraint has been violated by events occurring AFTER this event.
8	S	The Maximum Separation constraint has been violated.
	s	The Minimum Separation constraint has been violated.
9	<	The Movement constraint has been violated in getting to this event.
	>	The Movement constraint has been violated in getting to the next event.
	M	The movement constraint has been violated in getting to and from this event.
10	C	The capacity constraint has been violated.

S.c.2.1 Depress:

<'1> (until the starting day to be addressed is displayed on the top line of the display)

If the day of the Bulkhead is not contained in the portion of the SLAM being displayed in the SLAM Window, there will be no effect since no portion of any subschedule is being displayed.

Each time the <'1> key is depressed, the next subschedule for the addressed schedule will be addressed and the SLAM and Training Information Windows will be refreshed to reflect the status of the newly addressed subschedule.

S.c.3 To address a particular Day of Training and Period of the Day in the Schedule (and subschedule) displayed in the SLAM window, depress:

<'11> and/or <'14> until the Day of Training to be addressed is displayed and the flashing SLAM cursor (▶) is on that line.

<'11> causes the flashing SLAM cursor to address the next day of training, unless the SLAM cursor is on the bottom line of the SLAM Window. If the SLAM cursor is on the bottom line, the SLAM Window will be refreshed with the last displayed Day of Training becoming the first displayed Day of Training and with the SLAM cursor addressing the new last Day of Training displayed.

<'14> causes the flashing SLAM cursor to address the previous Day of Training, unless the SLAM cursor is addressing the first Day of Training displayed in the SLAM Window, in which case the SLAM Window will be refreshed with the first displayed Day of Training becoming the last displayed Day of Training and with the SLAM cursor addressing the new first Day of Training displayed.

S.c.3.1 Depress:

<'12> and/or <'13> until the flashing SLAM cursor (▶) is on the left edge of the period of the day to be addressed.

<'12> causes the SLAM cursor to address later training periods. If a Training Event requiring more than one period is assigned to the addressed period, the SLAM cursor will not address the second period of that Training Event but the first period of the next Training Event or available period.

<'13> causes the SLAM cursor to address earlier training periods. If a Training Event/Meal immediately precedes the addressed period, the SLAM cursor will address the first period of that training event or meal. If a blank period precedes the addressed period, it will be addressed.

S.c.3.2 Return to S.c, page 98, to select another option.

S.c.4 To address a particular Training Event in the Training Event Information Window, depress:

<'5> and/or <'6> until the Training Event to be addressed is displayed in the Training Event Information (TEI) Window with the flashing TEI cursor opposite it.

<'5> causes the flashing TEI cursor to address the next Training Event, unless the TEI cursor is addressing the last TEI displayed in the Training Event Information Window, in which case the Training Event Information Window will be refreshed with the last displayed Training Event becoming the first displayed Training Event and with the TEI cursor addressing the new display's last Training Event.

<'6> causes the flashing TEI cursor to address the preceding Training Event, unless the TEI cursor is addressing the first TEI displayed in the TEI window, in which case the TEI window will be refreshed with the first displayed Training Event becoming the last displayed Training Event and with the TEI cursor addressing the new display's first Training Event.

S.c.4.1 Return to S.c, page 98, to select another option.

S.c.5 To address a Training Event containing a specific Training Topic/Function, depress:

< FN >

The following prompt will appear on the first line of the Training Events Information Window:

"T/F ?"

S.c.5.1 Enter the Topic/Function number:

'####'

(The Unit Topic/Function number will be displayed as it is entered.)

S.c.5.2 Depress:

)RETURN(

The TEI Window will be refreshed with the next Training Event containing the entered Unit Topic/Function addressed at the top of the TEI display.

S.c.5.3 If the addressed Training Event is not the one required, repeat S.c.5.1 through S.c.5.3 until the desired Training Event is addressed.

S.c.5.4 Return to S.c, page 98, to select another option.

S.c.6 To address a Meal beginning in the addressed period, depress:

< BEGIN >

The TEI Window will be refreshed with the first Meal beginning in the addressed period displayed on the top line.

(NOTE: If no meal is served in the addressed period there will be no affect.)

S.c.6.1 Return to S.c to select another option.

S.c.7 To insert a Training Event/Meal into the SLAM, Address the schedule into which the Training Event/Meal is to be inserted.

S.c.7.1 Address the Day and Period of training in the SLAM window into which the Training Event/Meal is to be inserted. (See S.c.3, page 100.)

S.c.7.2 If the day is beyond the Bulkhead, address the subschedule into which the Training Event/Meal is to be inserted.

S.c.7.3 Address the Training Event/Meal which is to be inserted into the SLAM in the TEI Window.

S.c.7.4 Depress:

< INSERT >

If the addressed Training Event is assigned to another day and period(s), it will be removed from that day and period(s).

If other Training Events/Meals are assigned to the day and periods to which the addressed Training Event/Meal is to be assigned, they will be deleted from the SLAM. The addressed day and period(s), and the SLAM and TEI windows will be refreshed to reflect the changes.

S.c.7.5 Return to S.c, page 98, to select another option.

S.c.8 To remove a Training Event/Meal from the SLAM, Address the schedule from which the Training Event/Meal is to be removed.

S.c.8.1 Address the day and period of training from which the Training Event/Meal is to be removed (See S.c.3, page 100.)

S.c.8.2 If the day is beyond the Bulkhead, address the subschedule from which the Training Event/Meal is to be removed.

S.c.8.3 Depress:

< DELETE >

The Training Event that is addressed by the SLAM cursor in the SLAM Window will be removed from the SLAM, and the SLAM and TEI Windows will be refreshed to reflect the change.

S.c.8.4 Return to S.c, page 98, to select another option.

S.c.9 To Exit the Schedule File Editor, depress:

< END >

The Schedule Editing display will be replaced by the Schedule Editor Disengage Options Menu.

S.c.9.1 Go to X.0, page 105, for data file exit options.

X.0 Data File Exit Options Menu

The following File Editor Exit Options Menu will be displayed:

Facilities File Editor Exit Routine

Options:

'S' - save current changes

'A' - abort current changes

To save the addressed file as currently edited, go to X.1 below.

To abort the changes made to the addressed file during the current editing session, go to X.2 below.

X.1 To save the addressed Facilities File as currently addressed, depress:

'S'

The currently addressed file will be saved as currently edited and the BOOTS Master Menu will be returned.

X.1.1 Return to M., page 25, to select another function.

X.2 To abort current changes, depress:

'A'

The current changes will be erased and the BOOTS Master Menu will be returned.

X.2.1 Return to M., page 25, to select another function.

P. LINEPRINTER OUTPUT GENERATOR (OPTION 6)

The Lineprinter Output Generator (LOG) is used to prepare hardcopy listings of the files created and edited by the file editors. While the other BOOTS system functions may be performed without the use of a printer, this function requires that a printer be available.

If the BOOTS system is being engaged from a remote site which has a printer as well as a modem and a terminal, the printer may be enabled by the user. If, however, the remote site is not equipped with a printer, it will be necessary to obtain use of the host computer's printer. The user should always inform the computer operator ahead of time that he wishes to use the host computer's printer, so that the printer may be reserved for his use. (If this is not done, and another user is using the printer, the Lineprinter Output Generator program may stall trying to access the printer and prevent you from performing any operations.)

The Lineprinter Output Generator allows the user to create hardcopies of the following files and to return to the BOOTS Master Menu:

- Curriculum Files
- Facilities Files
- Time Format Files
- Restrictions Files
- Schedule Files

When the Lineprinter Output Generator has been selected (see M., "Function Selection," page 25), the following Lineprinter Output Generator Options Menu will be displayed:

```
                    Lineprinter Output Generator

Option!      Available Options
      !
1     !  Print Facilities file
2     !  Print Time Format file
3     !  Print Curriculum file
4     !  Print Restrictions file
5     !  Print Restrictions file (Windows)
6     !  Print Schedule file (numeric format)
7     !  Print Schedule file  (word format)
      !
<END> !  EXIT Lineprinter Output Generator


                                        Enter Desired Option:
```

P.1 Select the type of file to be printed by depressing the corresponding number:

'#'

The Lineprinter Output Generator Menu will be replaced by the file menu of the selected file type. A file menu for Curriculum Files is shown below.

```
*** Curriculum File Print Selector ***        D15 S: 0


                    *  rtcCOR83
                    >  rtcCOR84
                    >
                    >
                    >
                    >
                    >
                    >


Options:
  spacebar <Selector down>  Load <Print file>
  Backspace <Selector up>   Recall <return to Print Menu>
```

P.2 Depress:

'spacebar' and/or 'backspace'

until the cursor (▶) is opposite the file to be printed.

P.3 Depress:

)LOAD(

The selected file will be loaded, the printer will begin printing the file, and the file selection menu will be replaced with the following:

```
*** Facilities File Print Selector ***        DIS S: 0


                Printing --> rtcFOR83

Touch any key to stop printing before next selection.
```

P.4 If printing of the file is to be terminated before completion, depress:

)RETURN(

The printing will cease at the end of the current page. When the printing is completed (or has been terminated) the Lineprinter Output Generator Options Menu will be returned.

P.5 If additional files are to be printed, return to P., page 106, to select another option.

P.6 When the printing of all files to be printed is completed, depress:

< END >

P.7 Go to M., page 25, to select another option.

APPENDIX A

ANNOTATED LIST OF BOOTS PROGRAM FILES

ANNOTATED LIST OF BOOTS PROGRAM FILES

PROGRAM NAME	PROGRAM FUNCTION	DATA FILES	REQUIRED SECTORS	CALLING PROGRAMS	CALLING PROGRAMS
RTC.$BYE	Close files and release data partition		5	RTC.CDAT RTC.DATA	
RTC.ADRS	Assign device addresses and load common subroutines	rtc FILE	72	(START)	RTC.ISUB RTC.MENU
RTC.CDAT	Load schedule and reference files required in data partition when developing a schedule	rtcFxxxx rtcRxxxx rtcSxxxx rtcTxxxx	14	RTC.PART	RTC.DATA RTC.$BYE (RTC.GLBL)
RTC.DATA	Execute subroutines in the data partition as commanded by the interactive mode processor, RTC.IMP	rtcFxxxx rtcRxxxx rtcSxxxx rtcTxxxx	28	RTC.CDAT	RTC.$BYE (RTC.GLBL)
RTC.EDCF	Create/edit a Curriculum File	rtc FILE rtcCxxxx	57	RTC.MENU	RTC.MENU
RTC.EDFF	Create/edit a Facilities File	rtc FILE rtcFxxxx	58	RTC.MENU	RTC.MENU
RTC.EDRA	Assign/edit the Training Areas associated with each Restrictions Element	rtc FILE rtcRxxxx rtcFxxxx	27	RTC.RFEM	RTC.RFEM
RTC.EDRB	Assign/edit the blocking of Restrictions Elements into groups which should be scheduled together	rtcRxxxx	50	RTC.RFEM	RTC.RFEM
RTC.EDRN	Define/edit Restrictions Elements	rtcCxxxx rtcRxxxx	100	RTC.RFEM	RTC.RFEM
RTC.EDRP	Assign/edit the Restrictions Elements whose training events must precede the Training Events of certain other Restriction Elements with resepct to the day of training and the period of the day	rtcRxxxx	55	RTC.RFEM	RTC.RFEM

ANNOTATED LIST OF BOOTS PROGRAM FILES (continued)

PROGRAM NAME	PROGRAM FUNCTION	DATA FILES	REQUIRED SECTORS	CALLING PROGRAMS	CALLING PROGRAMS
RTC.EDRS	Assign/edit pairs of Restrictions Elements whose Training Events are required to be separated and the minimum and maximum allowable separation	rtcRxxxx	42	RTC.RFE	MRTC.RFEM
RTC.EDRT	Assign/edit the type for each Restrictions Element which is of a type for which smoothing must occur	rtcRxxxx	27	RTC.RFEM	RTC.RFEM
RTC.EDRW	Assign/edit the day and period windows and their preference values for each Restrictions Element	rtcRxxxx	32	RTC.RFEM	RTC.RFEM
RTC.GLBL	Contains the global variable used to transfer data and commands between the command partition and data partition when using the scheduling option (must be in a universal-global partition)		4		
RTC.IMP	Create/edit a Schedule File (requires concurrent use of RTC.DATA and RTC.GLBL in the data partition and global partition respectively)		84	RTC.PART	RTC.MENU
RTC.ISUB	Execute commonly used subroutines		19	RTC.ADRS	
RTC.MENU	Access the major BOOTS system options		30	RTC.ADRS	(START) RTC.EDCF RTC.EDFF RTC.EDRN RTC.EDTF RTC.PART RTC.PRTM
RTC.PART	Enable the global partition and attach to a second partition to use as the data partition required when using the scheduling option		12	RTC.MENU	RTC.CDAT RTC.IMP RTC.MENU (RTC.GLBL)

ANNOTATED LIST OF BOOTS PROGRAM FILES (continued)

PROGRAM NAME	PROGRAM FUNCTION	DATA FILES	REQUIRED SECTORS	CALLING PROGRAMS	CALLING PROGRAMS
RTC.PRTM	Access the Lineprinter Output Generator options		29	RTC.MENU	RTC.MENU RTC.PSUB
RTC.PSUB	Execute special printer subroutines		10	RTC.PRTM	
RTC.PTCF	Select and print a Curriculum File	rtc FILE rtcCxxxx	15	RTC.PRTM	RTC.PRTM
RTC.PTFF	Select and print a Facilities File	rtc FILE rtcFxxxx	19	RTC.PRTM	RTC.PRTM
RTC.PTRF	Select and print a Restrictions File	rtc FILE rtcFxxxx rtcRxxxx rtcTxxxx	32	RTC.PRTM	RTC.PRTM
RTC.PTRW	Select and print the windows assigned to a Restrictions File	rtc FILE rtcFxxxx rtcRxxxx rtcTxxxx	32	RTC.PRTM	RTC.PRTM
RTC.PTSN	Select and print a Schedule File in matrix format	rtc FILE rtcSxxxx	31	RTC.PRTM	RTC.PRTM
RTC.PTTF	Select and print a Time Format File	rtc FILE rtcTxxxx	35	RTC.PRTM	RTC.PRTM
RTC.RFEM	Assign/edit the files referenced by the Restrictions Files and access the Restrictions File editing options	rtc FILE rtcRxxxx	46	RTC.MENU	RTC.EDRA RTC.EDRB RTC.EDRN RTC.EDRR RTC.EDRS RTC.EDRT RTC.EDRW

APPENDIX B

BOOTS SYSTEM HARDWARE REQUIREMENTS

Equipment	Vendor Name and Part No.	Function	Cost[1]	Cost[2]
Central Processing Unit (CPU)	Wang 2200/LVP-32X with a minimum of 128K bytes user memory 5M bytes disk storage	Operate BOOTS functional programs	$ 9,984	-
Telecommunication	Wang 2227B Controller Rayco-Vadic 3451 Modem	Provide interconnect to remotely located CPU	- -	$ 720 (700)
Terminal	Wang 2226DE Interactive DP Workstation	Provide user/computer system interface	$ 2,112	$2,112
	Wang 2236MXD 4-Port Terminal Multiplexer		$ 1,152	-
Printer	Wang 2233 Matrix Printer	Provide hard-copy listings of data files and schedules	$ 2,400	$2,400
			$15,648	$5,232 (5,212)

[1]If access to a Wang 2200/MVP or Wang 2200/LVP with a minimum of 128K bytes user memory and 5M bytes disk storage is not available.

[2]If access to a Wang 2200/MVP or Wang 2200/LVP with a minimum of 128K bytes of user memory and 5M bytes of disk storage is available.

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